#### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

## Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

**Issued to:** Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions**

**A. Emission Unit #S2.001** location North 4,525.59 km, East 487.13 km, UTM (Zone 11)

#### A. System 01 – Unit #1 Boiler

- S 2.001 Babcock & Wilcox balanced draft, dry bottom, opposed wall fired geometry boiler, model # FM 9-30 OF-36, serial # 82-7501, Commencement of Construction: September 20, 1977
  - 1. NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u> <u>Air Pollution Equipment</u>
    - a. Control system consisting of:
      - (1) Baghouse to control particulate matter emissions.
      - (2) Air atomized ignitors to control particulate matter and opacity during startup and for flame stabilization.
      - (3) Multi-stage combustion to control nitrogen oxides emissions through the use of Low NO<sub>x</sub> Burners and Over Fired Air.
    - b. Stack Parameters:

Stack Height: 504.9 ft
Stack Diameter: 18.44 ft
Nominal Exhaust Temperature: 285.2 °F

Nominal Volumetric Flowrate: 674,931.4 dscfm

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## **Section VI. Specific Operating Conditions** (continued)

#### A. Emission Unit #S2.001 (continued)

 NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u> Emission Limits

On and after the date of startup of **S2.001**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.001** the following pollutants in excess of the following specified limits:

- a. NAC 445B.2203 <u>State-Only Requirement</u> The discharge of **PM**<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.166** pound per million Btu.
- b. 40 CFR Part 60.42(a)(1) <u>Federal Enforceable New Source Performance Standard Requirement</u> The discharge of PM (total particulate matter) to the atmosphere will not exceed **0.10** pound per million Btu.
- c. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of **PM**<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **256.0** pounds per hour.
- d. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **256.0** pounds per hour.
- e. 40 CFR Part 60.44(a)(3) <u>Federal Enforceable New Source Performance Standard Requirement</u> The discharge of **NO**<sub>x</sub> (nitrogen oxides) to the atmosphere will not exceed **0.70** pound per million Btu, based on a 3-hour rolling average.
- f. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of  $NO_x$  (nitrogen oxides) to the atmosphere will not exceed **7,849** tons per year, based on a 12-month rolling average.
- g NAC 445B.22047 <u>State-Only Requirement</u> The discharge of **sulfur** to the atmosphere will not exceed **1,536** pounds per hour, averaged over each one-hour period.
- h. 40 CFR Part 60.43(a)(2) <u>Federal Enforceable New Source Performance Standard Requirement</u> The discharge of **SO<sub>2</sub>** (sulfur dioxide) to the atmosphere will not exceed **1.20** pounds per million Btu, based on a 3-hour rolling average.
- i. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of **SO<sub>2</sub>** (sulfur dioxide) to the atmosphere will not exceed **3,072** pounds per hour, based on a 3-hour rolling average.
- j. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of **CO** (carbon monoxide) to the atmosphere will not exceed **8,340** pounds per hour.
- k. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of **VOC** (volatile organic compounds) to the atmosphere will not exceed **55** pounds per hour.
- 1. NAC 445B.22017 The **opacity** from **S2.001** will not equal or exceed 20%. The opacity must be determined as set forth in 445B.22017.1(a) or (b). **S2.001** is allowed one 6-minute period per hour of not more than 27 percent opacity as set forth in 40 CFR part 60.42(a)(2).
- m. 40 CFR Part 60.42(a)(2) <u>Federal Enforceable New Source Performance Standard Requirement</u> The **opacity** from **S2.001** will not exceed **20**% for a period of 6 minutes in any one hour, except for one 6-minute period per hour of not more than 27% opacity.



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## **Section VI. Specific Operating Conditions** (continued)

#### A. Emission Unit #S2.001 (continued)

- 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - n. Specific Acid Rain Requirements
    - (1) Sierra Pacific Power Company North Valmy Generating Station will not exceed the SO<sub>2</sub> emission levels (acid rain allowances) for **S2.001** in the indicated years as shown in the following table without holding the required acid rain allowances in accordance with Section IV.B.2 of the Acid Rain provisions [40 CFR Part 72.9]:

Pollutant	Calendar Year	2006	2007	2008	2009	2010
SO <sub>2</sub> (sulfur dioxide)	Acid Rain Allowance	6,958	6,958	6,958	6,958	6,569
NO <sub>x</sub> (nitrogen oxides)	Acid Rain Emission Limit (lb/MMBtu, annual average)*	0.50	0.50	0.46	0.46	0.46

Note: the NO<sub>x</sub> emission limit is effective through December 31, 2007. The above emission limits apply only until the revised effective date or until compliance is not demonstrated in each applicable year, at which time the NO<sub>x</sub> early election approval will be terminated.

- (2) Sierra Pacific Power Company North Valmy Generating Station will comply with the SO<sub>2</sub> acid rain permit application dated December 28, 1995 entitled "A Phase II Permit Application" and all references contained therein, which is hereby incorporated by reference into this operating permit as Attachment 1 [NAC 445B.305 (445.7075)].
- (3) Sierra Pacific Power Company North Valmy Generating Station will comply with the Phase II Acid Rain Permit for NO<sub>x</sub> Early Election (effective from January 1, 1997 to December 31, 2007) and the NO<sub>x</sub> Compliance Plan dated January 2, 2008 entitled "Phase II NO<sub>x</sub> Compliance Plan". The EPA Phase II Acid Rain Permit for NO<sub>x</sub> Early Election and the Phase II NO<sub>x</sub> Compliance Plan documents are hereby incorporated by reference into this operating permit as Attachment 1 [40 CFR Part 72.40, NAC 445B.305 (445.7075)].

#### 3. NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u>

#### **Operating Parameters**

- a. Maximum allowable heat input for any fuel combusted in **S2.001** will not exceed **2,560.0** MMBtu/hr, averaged over a one-hour period.
- b. **S2.001** may combust coal as the primary fuel. The use of #2 fuel oil and "on-spec" used oil is designated for boiler startup and flame stabilization purposes during the startup or shutdown of a coal burner. "On-spec" used oil is defined as nonhazardous oil meeting the requirements of 40 CFR Part 279, Standards for the Management of Used Oil.
- c. All "on-spec" used oil combusted in **S2.001** will be obtained only from Sierra Pacific Power facilities.
- d. Hours
  - **S2.001** may operate a total of **8,760** hours per calendar year.

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## **Section VI. Specific Operating Conditions (continued)**

#### Emission Unit #S2.001 (continued)

NAC 445B.3405 (NAC 445B.316) Part 70 Program 4. Monitoring, Record keeping, Reporting and Compliance

#### Performance/Compliance Testing

Permittee, will conduct and record the annual compliance test within 90 days of the anniversary date of the initial compliance testing. As part of the annual compliance test **the Permittee** shall:

- (1) Conduct and record a Method 5 performance test for PM on the exhaust stack of **S2.001** consisting of three valid runs. The Method 5 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 5, and include the back-half catch. Compliance with the particulate matter standards contained in A.2.a through A.2.d shall be determined by using the dry basis F factor (O<sub>2</sub>) procedures in Method 19 to compute the emissions rate. Method 5 shall be used to determine the particulate matter concentration. The sampling time and sample volume for each run shall be at least 120 minutes and 1.70 dscm (60 dscf). The probe and filter holder heating system in the sampling train may be set to provide an average gas temperature of 160 +/- 140°C (320 +/-250°F). For each particulate run, the emission rate correction factor, integrated or grab sampling and analysis procedures of Method 3B shall be used to determine the O<sub>2</sub> concentration. The O<sub>2</sub> sample shall be obtained simultaneously with, and at the same traverse points as, the particulate run. If the particulate run has more than 12 traverse points, the O<sub>2</sub> traverse points may be reduced to 12 provided that Method 1 is used to locate the 12 O<sub>2</sub> traverse points.
- (2) Conduct and record a Method 201A and 202 performance test for PM<sub>10</sub> on the exhaust stack of **S2.001** consisting of three valid runs. The Method 201A and 202 emissions tests must be conducted in accordance with 40 CFR Part 51, Appendix M, Method 201A and 202. The Method 201A and 202 emissions tests may be replaced by the Method 5 performance test required in A.4.a(1) above. All particulate captured in the Method 5 test will be considered PM10 for compliance demonstration purposes.
- (3) Conduct and record a Method 6 or 6C performance test for SO<sub>2</sub> on the exhaust stack of **S2.001** consisting of three valid runs. The Method 6 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A. Method 6 or 6C.
- (4) Conduct and record a Method 7 or 7E performance test for  $NO_x$  on the exhaust stack of **S2.001** consisting of three valid runs. The Method 7 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 7 or 7E.
- (5) Conduct and record a Method 10 performance test for CO on the exhaust stack of **S2.001** consisting of three valid runs. The Method 10 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 10.
- Conduct and record a Method 25 or 25A or conduct and record a Method 25 or 25A in conjunction with a Method 18 performance test for VOC on the exhaust stack of **S2.001** consisting of three valid runs. The Method 25, 25A and 18 emissions test(s) must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 25, 25A and 18.
- If an anticipated major boiler overhaul is to be performed which will coincide with a compliance test, the compliance testing will be performed prior to the overhaul, or as soon as practicable following the overhaul, but not earlier than 60 days following the overhaul.

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## **Section VI. Specific Operating Conditions (continued)**

#### Emission Unit #S2.001 (continued)

- NAC 445B.3405 (NAC 445B.316) Part 70 Program 4. Monitoring, Record keeping, Reporting and Compliance
  - Performance/Compliance Testing (continued)
    - During each compliance test, record the opacity of the discharge from the exhaust stack of **S2.001** using either a calibrated continuous opacity monitor or a visible emissions evaluation conducted in accordance with 40 CFR Part 60, Appendix A, Method 9. The Method 9 visible emissions test must be conducted by a certified visible emissions reader for a period of at least 60 minutes (recorded as ten 6-minute averages).
    - The performance tests will be conducted at the maximum operating heat input rate limit established in A.3.a of this section for each pollutant required to be tested, unless otherwise approved pursuant to NAC 445B.252.2 & 3. The Permittee shall make available to the director such records as may be necessary to determine the conditions of the test of performance. Operations during periods of startup, shutdown and malfunction must not constitute representative conditions of a test of performance unless otherwise specified in the applicable standard (NAC 445B.252.3).
    - (10) The Permittee shall give notice to the director 30 days before the test of performance to allow the director to have an observer present. A written testing procedure for the test of performance must be submitted to the director at least 30 days before the test of performance to allow the director to review the proposed testing procedures (NAC 445B.252.4). The alternative to the reference methods and procedures provided in 40 CFR Part 60.46(d) may be utilized to the extent that they are applicable to **S2.001**, and must be identified in the testing procedures as alternative methods.
    - (11) During each performance test required in A.4.a.(1) through (6) of this section, record the quantity (in tons) of coal combusted during each test run, the heat content value of the coal combusted during each test run (in Btu/ton) and include these data in the test results submitted. The emissions results of the Method 6, Method 7, Method 10, and Method 25, 25A or 25, 25A and 18 performance tests for SO<sub>2</sub>, NO<sub>x</sub>, CO, and VOC must be converted to emissions of sulfur (lb/hr and lb/MMBtu), emissions of nitrogen oxides (both lb/hr and lb/MMBtu), emissions of CO (both lb/hr and lb/MMBtu), and emissions of VOC (both lb/hr and lb/MMBtu). The emissions results of the Method 5 or Method 201A and 202 performance test for PM<sub>10</sub> must be reported in both lb/hr and lb/MMBtu.
    - (12) As a result of the most recent performance test performed in A.4.a.(1) and (2) of this section, derive emission factors for each of the following:
      - (i). Pounds of PM per MMBtu (lbs-PM/MMBtu), filterable and condensable.
      - (ii). Pounds of PM<sub>10</sub> per MMBtu (lbs-PM<sub>10</sub>/MMBtu), filterable and condensable.

These emissions factors will be based on the average of the 3 test runs.

(13) Within 60 days after completing the performance tests and opacity observations contained in A.4.a of this section, the Permittee shall furnish the director a written report of the results of the performance tests, the opacity observations and the resultant emissions factors. All information and analytical results of testing and sampling must be certified as to the truth and accuracy and as to their compliance with NAC 445B.001 to 445B.3497 (NAC 445B.252.8).

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## **Section VI. Specific Operating Conditions (continued)**

#### A. Emission Unit #S2.001 (continued)

NAC 445B.3405 (NAC 445B.316) Part 70 Program 4. Monitoring, Record keeping, Reporting and Compliance

#### Monitoring

The Permittee, upon startup of S2.001, will:

- (1) Install, calibrate, operate and maintain a coal mass measurement device to continuously measure the amount of coal (in tons) combusted in **S2.001**. The coal mass measurement device will be installed at an appropriate location in the fuel delivery system to accurately and continuously measure the fuel combusted in S2.001.
- Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the quantity (in tons) of coal as measured by the coal mass measurement device required in A.4.b.(1) of this section. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications.
- (3) Install, calibrate, maintain, and operate continuous emissions monitoring systems (CEMS) for measuring the opacity of emissions, SO<sub>2</sub> emissions, NO<sub>x</sub> emissions, and either oxygen (O<sub>2</sub>) or carbon dioxide (CO<sub>2</sub>). (40 CFR Part 60.45(a))
- Install, calibrate, maintain, and operate a CEMS, and record the output of the system, for measuring SO<sub>2</sub>concentration (in ppm), volumetric gas flow (in scfh), and SO<sub>2</sub> mass emissions (in lb/hr) discharged to the atmosphere; a NO<sub>X</sub>-diluent continuous emission monitoring system (consisting of a NO<sub>X</sub> pollutant concentration monitor and an O<sub>2</sub>or CO<sub>2</sub> diluent gas monitor) with an automated data acquisition and handling system for measuring and recording NO<sub>x</sub> concentration (in ppm), O<sub>2</sub> or CO<sub>2</sub> concentration (in percent O<sub>2</sub> or CO<sub>2</sub>) and NO<sub>x</sub> emission rate (in lb/mmBtu) discharged to the atmosphere; CO<sub>2</sub> continuous emission monitoring system and a flow monitoring system with an automated data acquisition and handling system for measuring and recording CO<sub>2</sub> concentration (in ppm or percent), volumetric gas flow (in scfh), and CO<sub>2</sub> mass emissions (in tons/hr) discharged to the atmosphere; a continuous opacity monitoring system with the automated data acquisition and handling system for measuring and recording the opacity of emissions (in percent opacity) discharged to the atmosphere, The owner or operator shall determine and record the heat input rate, in units of mmBtu/hr, to each affected unit for every hour or part of an hour any fuel is combusted
- Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the SO<sub>2</sub> concentration (in ppm), volumetric gas flow (in SCFH), and SO<sub>2</sub> mass emissions (in lb/hr and lb/MMBtu), as measured by the CEMS required in A.4.b(3) and (4) of this section, on a 1-hour and 3-hour periods. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications and the requirements prescribed in NAC 445B.256 to NAC 445B.267, 40 CFR Part 60, Appendix B, Performance Specifications, and 40 CFR Part 60.45
- (6) The results of the 1-hour average for SO<sub>2</sub> emissions (in lb/hr), determined in A.4.b(5) of this section, shall be divided by 2 to obtain the average sulfur emissions (in lb/hour).

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## **Section VI. Specific Operating Conditions (continued)**

#### A. Emission Unit #S2.001 (continued)

- NAC 445B.3405 (NAC 445B.316) Part 70 Program 4. Monitoring, Record keeping, Reporting and Compliance
  - Monitoring (continued)
    - (7) Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the NO<sub>x</sub> concentration (in ppm), volumetric gas flow (in SCFH), and NO<sub>x</sub> emissions rate (in lb/MMBtu and ton/year), as measured by the CEMS required in A.4.b(3) of this section, on a 1-hour, 3-hour, monthly and 12month rolling period. The monthly emissions will be determined at the end of each calendar month as the sum of each total daily emissions as determined for each day of the calendar month. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications and the requirements prescribed in NAC 445B.256 to NAC 445B.267
    - (8) If the Permittee has installed and certified an SO2, NOx, CO2 or O2 monitoring system according to 40 CFR Part 75.20(c) and Appendix A to part 75 and the monitoring system continues to meet the applicable qualityassurance provisions of 40 CFR Part 75.21 and Appendix B to Part 75, that CEMS may be used together with the Part 60 SO2 and NOx concentration monitoring systems described in A.4.b(3), to determine the SO2 and NOx emission rates in lb/MMBtu. SO2 and NOx data used to meet the requirements of this permit shall not include substitute data values derived from the missing data procedures in Subpart D of Part 75, nor shall the data have been bias adjusted according to the procedures of Part 75.
    - The CEMS required under A.4.b(3) and (4) are operated and data recorded during all periods of operation of the affected facility including periods of startup, shutdown, malfunction or emergency conditions, except for CEMS breakdowns, repairs, calibration checks, and zero and span adjustments.
    - (10) Data from a continuous flow monitoring system and moisture monitoring system as applicable as required in A.4.b(4), certified according to the requirements of 40 CFR Part 75.20(c) and appendix A to Part 75, and continuing to meet the applicable quality control and quality assurance requirements of 40 CFR Part 75.21 and appendix B to Part 75 of this chapter, may be used to show continual compliance with the heat input rate in mmBtu/hr as required in A.3.a. Flow rate data and moisture data as applicable, reported to meet the requirements of this permit shall not include substitute data values derived from the missing data procedures in subpart D of Part 75, nor shall the data have been bias adjusted according to the procedures of Part 75. Other methods of determining the heat input rate may be used with the approval of the Director.
    - (11) Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the oxygen or carbon dioxide content of the flue gases at each location where sulfur dioxide or nitrogen oxides emissions are monitored (40 CFR Part 60.45). The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications and the requirements prescribed in NAC 445B.256 to NAC 445B.267.

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## **Section VI. Specific Operating Conditions (continued)**

#### A. Emission Unit #S2.001 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program Monitoring, Record keeping, Reporting and Compliance
  - Monitoring (continued)
    - (12) Install, calibrate, operate and maintain a continuous opacity monitoring system to continuously measure and record the opacity from **S2.001**. The continuous opacity monitoring system will be installed at an appropriate location in the discharge stack of \$2.001 to accurately and continuously measure the opacity of \$2.001 in accordance with the requirements prescribed in NAC 445B.256 to NAC 445B.267, 40 CFR Part 60.45, 40 CFR Part 60, Appendix B, Performance Specification 1, and 40 CFR Part 75.10. If opacity interference due to water droplets exists in the stack, the opacity is monitored upstream of the interference.
    - (13) Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the opacity (in percent opacity) as measured by the continuous opacity monitoring system required in A.4.b.(12) of this section. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications and the requirements prescribed in NAC 445B.256 to NAC 445B.267, 40 CFR Part 60.45, 40 CFR Part 60, Appendix B, Performance Specification 1, 40 CFR Part 75.10 and 40 CFR Part 75.14.
    - (14) Install, calibrate, operate and maintain a fuel flow meter to continuously measure the volume of No. 2 distillate fuel oil and "on-spec" used oil (in gallons) combusted in **S2.001**. The fuel flow meter will be installed at an appropriate location in the fuel delivery system to accurately and continuously measure the fuel combusted in **S2.001** in accordance with the requirements prescribed in 40 CFR Part 75.
    - (15) Using either the Flow Proportional or Manual Method described in 40 CFR Part 75, Appendix D 2.2.1, 2.2.3, or 2.2.4 prepare a sample representative of the No. 2 distillate fuel oil and "on-spec" used oil combusted in S2.001 for each day (or a composite sample representative of the entire tank upon delivery of No. 2 distillate fuel oil and "on-spec" used oil to the tank) while combusting that fuel. The sulfur content of the fuel oil sample shall be determined in accordance with the requirements prescribed in 40 CFR Part 75, Appendix D or the CEMS required in A.4.b.(3). The gross calorific value of this sample will be determined in accordance with ASTM D240-87 (Re-approved 1991), "Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter" or ASTM D2382-88, "Standard Test Method for Heat or Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High Precision Method) and the requirements prescribed in 40 CFR Part 75, Appendix F, Section 3.3.6.2." Alternatively, an estimated maximum gross calorific value of 20,000 Btu per pound (Btu/lb) @ 7.4 pounds per gallon (lb/gal) for No. 2 distillate fuel oil may be used.
    - (16) Monitor on at least a weekly basis the differential pressure drop across the baghouse control system for **S2.001**.
    - (17) On an annual basis, perform an inspection of the baghouse system for **S2.001** including a visual inspection of the bags and all connecting points. Annual baghouse inspection records must show that observations were made and include records of any corrective actions taken.
    - (18) Monitor the hours of operation of **S2.001** on a daily basis.

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## **Section VI. Specific Operating Conditions** (continued)

#### A. Emission Unit #S2.001 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u>
  Monitoring, Record keeping, Reporting and Compliance (Continued)
  - c. 40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the date of initial startup, Permittee will:

- (1) Install, calibrate, operate and maintain devices for the measurement of the pressure drop across the baghouse controlling emissions from **S2.001**.
- (2) Conduct and record a reading of the baghouse pressure drop across the inlet and outlet of the baghouse controlling emissions from **S2.001** once per week of operation. Record any monitored excursions from the indicator range and record any corrective actions taken.
- (3) The indicator range for the baghouse pressure drop shall be between **1.0** and **9.5** inches of water for the baghouse controlling emissions from **S2.001**. Excursions shall be defined as anytime the baghouse pressure drop falls outside this indicator range.
- (4) Conduct and record a baghouse inspection on an annual basis.
- (5) The required monitoring established in c.(1) through (4) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each week, or part of the week that **S2.001** is operating:
  - (i) Results of the reading of the pressure drop across the baghouse controlling emissions from **S2.001**, each week that **S2.001** is in operation.
  - (ii) Results and verification of the annual baghouse inspection and documentation of the inspection date of the baghouse controlling emissions from **S2.001**, and any corrective actions taken.

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## **Section VI. Specific Operating Conditions** (continued)

#### A. Emission Unit #S2.001 (continued)

4. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>
Monitoring, Record keeping, Reporting and Compliance (Continued)

#### d. Recordkeeping

**The Permittee** will maintain a contemporaneous log containing at a minimum, the following recordkeeping for each day, or part of a day that **S2.001** is operating:

- (1) Follow the notification and recordkeeping provisions of 40 CFR Part 60.7 and 60.19.
- (2) The total hourly quantity of:
  - (i) Coal (in tons) combusted, for each hour of operation based on the data recorded by the CDCS as required in A.4.b.(2) of this section.
  - (ii) No. 2 distillate fuel oil and "on-spec" used oil (in gallons) combusted, for each day of operation, as provided by the fuel flow meter required in A.4.b.(14) of this section.
- (3) Daily hours of operation:
  - (i) The total daily hours of operation for the corresponding date.
  - (ii) For boiler start-up, flame stabilization, and shut down, record the total hours of start-up, flame stabilization, and shut down operations for the corresponding date.
- (4) (i) The average hourly heat input of the coal, fuel oil, or "on-spec" used oil combusted, in MMBtu per hour. The hourly heat inputs will be calculated as follows and as described in A.4.b(10) of this section:

$$HI = Q_w * (1/F_c) * (\%CO_{2w}/100)$$

#### Where:

HI = Hourly heat input rate during unit operation, mmBtu/hr

 $Q_w$  = Hourly average volumetric flow rate during unit operation, wet basis, scfh

F,  $F_c$ = factor representing a ratio of the volume of dry flue gases generated to the caloric value of the fuel combusted (F), and a factor representing a ratio of the volume of  $CO_2$ generated to the calorific value of the fuel combusted ( $F_c$ ), respectively. Table 1 lists the values of F and  $F_c$  for different fuels.

Table 1: F and F<sub>c</sub> Factors<sup>1</sup>

Fuel	F-factor (dscf/mmBtu)	F <sub>C</sub> -factor (scf CO <sub>2</sub> /mmBtu)
Coal (as defined by ASTM D388–99):		
Anthracite	10,100	1,970
Bituminous	9,780	1,800
Sub-bituminous	9,820	1,840
Lignite	9,860	1,910

<sup>&</sup>lt;sup>1</sup>Determined at standard conditions: 20 °C (68 °F) and 29.92 inches of mercury.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375 Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

## **Section VI. Specific Operating Conditions (continued)**

#### Emission Unit #S2.001 (continued)

- NAC 445B.3405 (NAC 445B.316) Part 70 Program 4. Monitoring, Record keeping, Reporting and Compliance (Continued)
  - d. Recordkeeping (continued)
    - (4) (ii) Equations F-7a and F-7b may be used in lieu of the F or  $F_c$  factors specified in the table above to calculate a site-specific dry-basis F factor (dscf/mmBtu) or a site-specific F<sub>c</sub> factor (scf CO<sub>2</sub>/mmBtu), on either a dry or wet basis. At a minimum, the site-specific F or F<sub>c</sub> factor must be based on 9 samples of the fuel. Fuel samples taken during each run of a RATA are acceptable for this purpose. The site-specific F or F<sub>c</sub> factor must be re-determined at least annually, and the value from the most recent determination must be used in the emission calculations. Alternatively, the previous F or F<sub>c</sub> value may continue to be used if it is higher than the value obtained in the most recent determination. The owner or operator shall keep records of all site-specific F or F<sub>c</sub> determinations, active for at least 3 years. (Calculate all F- and F<sub>c</sub> factors at standard conditions of 20 °C (68 °F) and 29.92 inches of mercury).

Eq. F-7a: 
$$F = \frac{3.64(\%H) + 1.53(\%C) + 0.57(\%S) + 0.14(\%N) - 0.46(\%O)}{GCV} \times 10^6$$

Eq. F-7b: 
$$F_c = \frac{321 \times 10^3 (\%C)}{GCV}$$

Where:

H, C, S, N, and O are content by weight of hydrogen, carbon, sulfur, nitrogen, and oxygen (expressed as percent), respectively, as determined on the same basis as the gross calorific value (GCV) by ultimate analysis of the fuel combusted using ASTM D3176-89 (Reapproved 2002), Standard Practice for Ultimate Analysis of Coal and Coke, (solid fuels), ASTM D5291–02, Standard Test Methods for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Petroleum Products and Lubricants, (liquid fuels) or computed from results using ASTM D1945-96 (Reapproved 2001), Standard Test Method for Analysis of Natural Gas by Gas Chromatography, or ASTM D1946-90 (Reapproved 2006), Standard Practice for Analysis of Reformed Gas by Gas Chromatography, (gaseous fuels) as applicable.

GCV is the gross calorific value (Btu/lb) of the fuel combusted determined by ASTM D5865-01a, Standard Test Method for Gross Calorific Value of Coal and Coke, and ASTM D240-00, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, or ASTM D4809-00, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method) for oil; and ASTM D3588-98, Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density of Gaseous Fuels, ASTM D4891-89 (Reapproved 2006), Standard Test Method for Heating Value of Gases in Natural Gas Range by Stoichiometric Combustion, GPA Standard 2172-96 Calculation of Gross Heating Value, Relative Density and Compressibility Factor for Natural Gas Mixtures from Compositional Analysis, GPA Standard 2261-00 Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography, or ASTM D1826-94 (Reapproved 1998), Standard Test Method for Calorific (Heating) Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, for gaseous fuels, as applicable.

(iii) For affected units that combust a combination of a fuel (or fuels) listed in Table 1 above with any fuel(s) not listed in Table 1, the F or  $F_c$  value is subject to the Administrator's approval under.

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## **Section VI. Specific Operating Conditions** (continued)

#### A. Emission Unit #S2.001 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) *Part 70 Program*Monitoring, Record keeping, Reporting and Compliance (Continued)
  - d. <u>Recordkeeping</u> (continued)
    - (4) (iv) For affected units that combust combinations of fuels listed in Table 1 above, prorate the F or F<sub>c</sub> factors determined by section B.4.d(i) or B.4.d(ii) in accordance with the applicable formula as follows:

$$F = \sum_{i=1}^{n} X_{i} F_{i}$$
  $F_{c} = \sum_{i=1}^{n} X_{i} (F_{c})_{i}$ 

Where,

 $X_i$ = Fraction of total heat input derived from each type of fuel (*e.g.*, bituminous coal, sub-bituminous coal). Each  $X_i$  value shall be determined from the best available information on the quantity of fuel combusted and the GCV value, over a specified time period. The owner or operator shall explain the method used to calculate  $X_i$  in the hardcopy portion of the monitoring plan for the unit. The  $X_i$  values may be determined and updated either hourly, daily, weekly, or monthly. In all cases, the prorated F-factor used in the emission calculations shall be determined using the  $X_i$  values from the most recent update.

 $F_i$  or  $(F_c)_i$ = Applicable F or Fc factor for each fuel type determined in accordance with section B.4.d(i) or B.4.d(ii).

n = Number of fuels being combusted in combination.

- (v) As an alternative to prorating the F or Fc factor as described in section B.4.d.(iv), a "worst-case" F or Fc factor may be reported for any unit operating hour. The worst-case F or Fc factor shall be the highest F or Fc value for any of the fuels combusted in the unit.
- (5) The hourly emission rate of PM and PM10 each:
  - (i) In pounds per hour (lbs/hr). The hourly emission rates will be calculated from the hourly heat input rate, as determined in A.4.d(4) of this section, and the emission factor derived in A.4.a.(12) of this section.
- (6) The emission rates of sulfur and SO2 each, in pounds per hour (lbs/hr) and pounds per million Btu (lbs/MMBtu) measured by the CEMS required in A.4.b.(3) and (4) of this section for each averaging period described below:
  - (i) The sulfur emissions in pounds per hour (lbs/hr) for each 1-hour period. Sulfur emissions will be one-half of the SO2 emissions measured.
  - (ii) The Sulfur and SO2 emissions in pounds per million Btu (lbs/MMBtu)

The compliance determination procedures established in 40 CFR Part 60 will be used to convert the continuous monitoring data into units of the applicable standards (e.g. lb/MMBtu and lbs/hr, 1-hour, and 3-hour average periods).

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## **Section VI. Specific Operating Conditions (continued)**

#### Emission Unit #S2.001 (continued)

- NAC 445B.3405 (NAC 445B.316) Part 70 Program 4. Monitoring, Record keeping, Reporting and Compliance (Continued)
  - Recordkeeping (continued)
    - The annual emissions rate of NOx in tons per year (tons/yr) and pounds per million Btu (lbs/MMBtu) measured by the CEMS required in A.4.b.(3) of this section. Total monthly emissions will be added to the previous 11 months in order to determine the 12-month rolling average. The compliance determination procedures established in 40 CFR Part 60 will be used to convert the continuous monitoring data into units of the applicable standard (e.g. ton/yr, lb/MMBtu, 3-hour, monthly, and 12-month rolling average).
    - The measured opacity (in percent opacity) from the continuous opacity monitoring system required in A.4.b.(12) of this section. The opacity will be determined from reducing all data from the successive 10-second readings and recorded for the following:
      - (i) Each 6-minute average, except for one 6-minute period per hour of up to 27 percent opacity as established in NAC 445B.22017.1(b) and as set forth in 40 CFR Part 60.13.
      - (ii) Each 6-minute average, except for one 6-minute period per hour of up to 27 percent opacity as established in 40 CFR Part 60.42(a)(2).
    - (9) Observations made and any corrective actions taken as a result of the baghouse inspection required in A.4.b.(17).
    - (10) Retain all records of laboratory analyses performed to show that all "on-spec" used oil is nonhazardous as defined by the requirements of 40 CFR Part 279, Standards for the Management of Used Oil.
    - (11) Retain recordkeeping which documents that the all of the "on-spec" used oil burned in **S2.001** is generated only in Sierra Pacific Power Company facilities.
    - (12) Retain all required records in accordance with Section V.A of this operating permit.

#### Reporting e.

Permittee will:

- (1) Report all excess emissions from **S2.001** as required in Section III.B and III.C of this operating permit.
- (2) Report excess emissions and monitoring system performance (MSP) to the Director and to the Administrator of U.S. EPA each calendar quarter. The quarterly reports will be postmarked by the 30<sup>th</sup> day following the end of each calendar quarter. Each excess emission and MSP report will include the information required in 40 CFR Part 60.7(c). Periods of excess emissions and monitoring systems (MS) downtime to be reported will be in accordance with 40 CFR Part 60.45(g)(1) through (3). [40 CFR Part 60.45(g)]
- (3) Report all deviations as required in Sections V.C and V.F of the operating permit.
- (4) Submit semi-annual monitoring reports as required in Section V.C of this operating permit.
- (5) Certify compliance with all applicable requirements as required in Section V.E of this operating permit.
- 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program **Shielded Requirements**

No shielded provisions are established for these emission units.

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## **Section VI. Specific Operating Conditions** (continued)

B. Emission Unit #S2.002 location North 4,525.59 km, East 487.13 km, UTM (Zone 11)

#### B. System 02 – Unit #2 Boiler

- S 2.002 Foster Wheeler balanced draft, dry bottom, single wall fired geometry boiler, model # Monowall, serial # 85-8051, Commencement of Construction: April 11, 1979
  - 1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Air Pollution Equipment</u>
    - a. Control system consisting of:
      - (1) Baghouse to control particulate matter emissions.
      - (2) Spray dryer using a lime slurry with a rated 70% minimum sulfur dioxide removal efficiency.
      - (3) Air atomized ignitors to control particulates and opacity during startup and for flame stabilization.
      - (4) Multi-stage combustion to control nitrogen oxides emissions through the use of Low NO<sub>x</sub> Burners and Over Fired Air.
    - b. Stack Parameters:

Stack Height: 450.2 ft
Stack Diameter: 17.0 ft
Nominal Exhaust Temperature: 203.0 °F

Nominal Volumetric Flowrate: 663,991.0 dscfm

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## **Section VI. Specific Operating Conditions** (continued)

#### B. Emission Unit #S2.002 (continued)

2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

#### **Emission Limits**

On and after the date of startup of **S2.002**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.002**, the following pollutants in excess of the following specified limits:

- a. NAC 445B.2203 <u>State-Only Requirement</u> The discharge of **PM10** (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.162** pound per million Btu.
- b. 40 CFR Part 60.42Da(a) <u>Federally Enforceable New Source Performance Standard Requirement</u> On and after the date on which the performance test required to be conducted under §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility for which construction, reconstruction, or modification commenced before or on February 28, 2005, any gases that contain **particulate matter** in excess of:
  - i. 13 ng/J (0.03 lb/million Btu) heat input derived from the combustion of solid, liquid, or gaseous fuel;
  - ii. 1 percent of the potential combustion concentration (99 percent reduction) when combusting solid fuel;
  - iii. and 30 percent of potential combustion concentration (70 percent reduction) when combusting liquid fuel.
- c. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of **PM**<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **86.43** pounds per hour.
- d. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of **PM** (particulate matter) to the atmosphere will not exceed **86.43** pounds per hour.
- e. 40 CFR Part 60.44Da(a) <u>Federally Enforceable New Source Performance Standard Requirement</u> On and after the date on which the initial performance test required to be conducted under 40 CFR Part 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility, except as provided under 40 CFR Part 60.44Da(b) and (d), any gases which contain **nitrogen oxides** (expressed as NO<sub>2</sub>) in excess of the following emission limits, based on a 30-day rolling average, except as provided under 40 CFR Part 60.48Da(j)(1):
  - i. 210 ng/J (**0.50 lb/million Btu**) heat input derived from the combustion of Sub-bituminous coal;
  - ii. 260 ng/J (0.60 lb/million Btu) heat input derived from the combustion of Bituminous coal;
  - iii. 65 percent reduction of potential combustion concentration when combusting solid fuel.
- f. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of **NOx** (nitrogen oxides) to the atmosphere will not exceed **6,309** tons per year, based on a 12-month rolling average.
- g NAC 445B.22047 <u>State-Only Requirement</u> The discharge of **sulfur** to the atmosphere will not exceed **1,729** pounds per hour.
- h. NAC 445B.22063 <u>State-Only Requirement</u> The allowable emission of **sulfur** from fossil fuel-fired power generating unit Number 2 Sierra Pacific Power Company's North Valmy Station, located in Air Quality Control Region 147, Basin 64, Clovers Area, must not be greater than **0.3 pounds per million Btu's** (0.540 kilograms per million kg-cal). The efficiency of the capture of sulfur must be maintained at a minimum of 70 percent, based on a 30-day rolling average.

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## **Section VI. Specific Operating Conditions** (continued)

#### B. Emission Unit #S2.002 (continued)

2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Emission Limits</u> (continued)

On and after the date of startup of **S2.002**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.002**, the following pollutants in excess of the following specified limits:

- i. 40 CFR Part 60.43Da(a)(g) <u>Federally Enforceable New Source Performance Standard Requirement</u> On and after the date on which the initial performance test required to be conducted under 40 CFR Part 60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility which combusts solid fuel or solid-derived fuel and for which construction, reconstruction, or modification commenced before or on February 28, 2005, except as provided under paragraphs 40 CFR Part 60.43(c), (d), (f) or (h), any gases that contain **sulfur dioxide** in excess of:
  - 520 ng/J (**1.20 lb/million Btu**) heat input and 10 percent of the potential combustion concentration (90 percent reduction), or
  - ii. 30 percent of the potential combustion concentration (70 percent reduction), when emissions are less than 260 ng/J (0.60 lb/million Btu) heat input.

Compliance with the emission limitation and percent reduction requirements under this section are both determined on a 30-day rolling average basis except as provided under paragraph (c) of this section.

- j. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of **SO<sub>2</sub>** (sulfur dioxide) to the atmosphere will not exceed **1,728.61** pounds per hour.
- k. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of **CO** (carbon monoxide) to the atmosphere will not exceed **8,340** pounds per hour.
- 1. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of **VOC** (volatile organic compounds) to the atmosphere will not exceed **55** pounds per hour.
- m. NAC 445B.22017 <u>State-Only Requirement</u> The **opacity** from **S2.002** will not equal or exceed 20%. The opacity must be determined as set forth in 445B.22017.1(a) or (b). **S2.002** is allowed one 6-minute period per hour of not more than 27 percent opacity as set forth in 40 CFR part 60.42Da(2).
- n. 40 CFR Part 60.42Da(b) <u>Federally Enforceable New Source Performance Standard Requirement</u> The **opacity** from **S2.002** will not exceed **20**% for a period of 6 minutes in any one hour, except for one 6-minute period per hour of not more than 27% opacity.



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# **Section VI. Specific Operating Conditions** (continued)

- B. Emission Unit #S2.002 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part 70 Program
    - Specific Acid Rain Requirements
      - (1) Sierra Pacific Power Company North Valmy Generating Station will not exceed the SO<sub>2</sub> emission levels (acid rain allowances) for \$2.002 in the indicated years as shown in the following table without holding the required acid rain allowances in accordance with Section IV.B.2 of the Acid Rain provisions [40 CFR Part 72.9]:

Pollutant	Calendar Year	2006	2007	2008	2009	2010
SO <sub>2</sub> (sulfur dioxide)	Acid Rain Allowance	4,261	4,261	4,261	4,261	3,966
NO <sub>x</sub> (nitrogen oxides)	Acid Rain Emission Limit (lb/MMBtu, annual average)*	0.50	0.50	0.46	0.46	0.46

\*Note: the NO<sub>x</sub> emission limit is effective through December 31, 2007. The above emission limits apply only until the revised effective date or until compliance is not demonstrated in each applicable year, at which time the NO<sub>x</sub> early election approval will be terminated.

- (2) Sierra Pacific Power Company North Valmy Generating Station will comply with the SO<sub>2</sub> acid rain permit application dated December 28, 1995 entitled "A Phase II Permit Application" and all references contained therein, which is hereby incorporated by reference into this operating permit as Attachment 1 [NAC 445B.305]
- (3) Sierra Pacific Power Company North Valmy Generating Station will comply with the Phase II Acid Rain Permit for NO<sub>x</sub> Early Election (effective from January 1, 1997 to December 31, 2007) and the NO<sub>x</sub> Compliance Plan dated January 2, 2008 entitled "A Phase II Permit Application NO<sub>x</sub> Compliance Plan". The EPA Phase II Acid Rain Permit for NO<sub>x</sub> Early Election and the Phase II NO<sub>x</sub> Compliance Plan documents are hereby incorporated by reference into this operating permit as Attachment 1 [NAC 445B.305 (445.7075)].
- 3. NAC 445B.3405 (NAC 445B.316) Part 70 Program **Operating Parameters** 
  - Maximum allowable heat input for any fuel combusted in S2.002 will not exceed 2,881.02 MMBtu/hr, averaged over a.
  - S2.002 may combust coal as the primary fuel. The use of #2 fuel oil and "on-spec" used oil is designated for boiler b. startup and flame stabilization purposes during the startup or shutdown of a coal burner. "On-spec" used oil is defined as nonhazardous oil meeting the requirements of 40 CFR Part 279, Standards for the Management of Used Oil.
  - All "on-spec" used oil combusted in **S2.002** will be obtained only from Sierra Pacific Power facilities. c.
  - d. Hours
    - S2.002 may operate 8,760 hours per calendar year.

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## **Section VI. Specific Operating Conditions (continued)**

- B. Emission Unit #S2.002 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part 70 Program Monitoring, Record keeping, Reporting and Compliance
    - Performance/Compliance Testing

Permittee, will conduct and record the annual compliance test within 90 days of the anniversary date of the initial compliance testing. As part of the annual compliance test the Permittee shall:

- (1) Conduct and record a Method 5 performance test for PM on the exhaust stack of **S2.002** consisting of three valid runs. The Method 5 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 5, and include the back-half catch. Compliance with the particulate matter standards contained in B.2.a through B.2.d shall be determined by using the dry basis F factor (O2) procedures in Method 19 to compute the emissions rate. Method 5 shall be used to determine the particulate matter concentration. The sampling time and sample volume for each run shall be at least 120 minutes and 1.70 dscm (60 dscf). The probe and filter holder heating system in the sampling train may be set to provide an average gas temperature of 160+/- 140C (320+/-250F). For each particulate run, the emission rate correction factor, integrated or grab sampling and analysis procedures of Method 3B shall be used to determine the O2 concentration. The O2 sample shall be obtained simultaneously with, and at the same traverse points as, the particulate run. If the particulate run has more than 12 traverse points, the O2 traverse points may be reduced to 12 provided that Method 1 is used to locate the 12 O2 traverse points (40 CFR Part 60.48Da(b)).
- (2) Conduct and record a Method 201A and 202 performance test for PM10 on the exhaust stack of S2.002 consisting of three valid runs. The Method 201A and 202 emissions tests must be conducted in accordance with 40 CFR Part 51, Appendix M, Method 201A and 202. The Method 201A and 202 emissions tests may be replaced by the Method 5 performance test required in B.4.a.(1) above. All particulate captured in the Method 5 test will be considered PM10 for compliance demonstration purposes.
- (3) Conduct and record a Method 6 or 6C performance test for SO2 on the exhaust stack of **S2.002** consisting of three valid runs. The Method 6 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A. Method 6 or 6C.
- (4) Conduct and record a Method 7 or 7E performance test for NOx on the exhaust stack of **S2.002** consisting of three valid runs. The Method 7 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 7 or 7E.
- (5) Conduct and record a Method 10 performance test for CO on the exhaust stack of **S2.002** consisting of three valid runs. The Method 10 emissions test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 10.
- (6) Conduct and record a Method 25 or 25A or conduct and record a Method 25 or 25A in conjunction with a Method 18 performance test for VOC on the exhaust stack of \$2.002 consisting of three valid runs. The Method 25, 25A and 18 emissions test(s) must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 25, 25A and 18.
- (7) If an anticipated major boiler overhaul is to be performed which will coincide with a compliance test, the compliance testing will be performed prior to the overhaul, or as soon as practicable following the overhaul, but not earlier than 60 days following the overhaul.

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## **Section VI. Specific Operating Conditions (continued)**

- B. Emission Unit #S2.002 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part 70 Program 4. Monitoring, Record keeping, Reporting and Compliance
    - Performance/Compliance Testing (continued)
      - During each compliance test, record the opacity of the discharge from the exhaust stack of \$2.002 using either a calibrated continuous opacity monitor or a visible emissions evaluation conducted in accordance with 40 CFR Part 60, Appendix A, Method 9. The Method 9 visible emissions test must be conducted by a certified visible emissions reader for a period of at least 60 minutes (recorded as ten 6-minute averages).
      - The performance tests will be conducted at the maximum operating heat input rate limit established in B.3 of this section for each pollutant required to be tested, unless otherwise approved pursuant to NAC 445B.252.2 & 3. The Permittee shall make available to the director such records as may be necessary to determine the conditions of the test of performance. Operations during periods of startup, shutdown and malfunction must not constitute representative conditions of a test of performance unless otherwise specified in the applicable standard (NAC 445B.252.3).
      - (10) The Permittee shall give notice to the director 30 days before the test of performance to allow the director to have an observer present. A written testing procedure for the test of performance must be submitted to the director at least 30 days before the test of performance to allow the director to review the proposed testing procedures (NAC 445B.252.4). The alternative to the reference methods and procedures provided in 40 CFR Part 60.48Da(e) may be utilized to the extent that they are applicable to **S2.002**, and must be identified in the testing procedures as alternative methods.
      - (11) During each performance test required in B.4.a.(1) through (6) of this section, record the quantity (in tons) of coal combusted during each test run, the heat content value of the coal combusted during each test run (in Btu/ton) and include these data in the test results submitted. The emissions results of the Method 6, Method 7, and Method 10 performance tests for SO2, NOx and CO must be converted to emissions of sulfur (both lb/hr and lb/MMBtu), emissions of nitrogen oxides (both lb/hr and lb/MMBtu), and emissions of CO (both lb/hr and lb/MMBtu). The emissions results of the Method 5 or Method 201A and 202 performance test for PM10 must be reported in both lb/hr and lb/MMBtu.
      - (12) As a result of the most recent performance test performed in B.4.a.(1) and (2) of this section, derive emission factors for each of the following:
        - (i). Pounds of PM per MMBtu (lbs-PM/MMBtu), filterable and condensable.
        - (ii). Pounds of PM<sub>10</sub> per MMBtu (lbs-PM<sub>10</sub>/MMBtu), filterable and condensable.

These emissions factors will be based on the average of the 3 test runs.

(13) Within 60 days after completing the performance tests and opacity observations contained in B.4.a of this section, the Permittee shall furnish the director a written report of the results of the performance tests, the opacity observations and the resultant emissions factors. All information and analytical results of testing and sampling must be certified as to the truth and accuracy and as to their compliance with NAC 445B.001 to 445B.3497 (NAC 445B.252.8).

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## **Section VI. Specific Operating Conditions (continued)**

- B. Emission Unit #S2.002 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part 70 Program 4. Monitoring, Record keeping, Reporting and Compliance
    - Monitoring

The Permittee, upon startup of S2.002, will:

- (1) Install, calibrate, operate and maintain a coal mass measurement device to continuously measure the amount of coal (in tons) combusted in **S2.002**. The coal mass measurement device will be installed at an appropriate location in the fuel delivery system to accurately and continuously measure the fuel combusted in S2.002.
- Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the quantity (in tons) of coal as measured by the coal mass measurement device required in B.4.b.(1) of this section. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications.
- (3) Install, calibrate, maintain, and operate a CEMS, and record the output of the system, for measuring the opacity of emissions, SO<sub>2</sub> emissions, NO<sub>x</sub> emissions and the CO<sub>2</sub> or O<sub>2</sub> content of the flue gas at each location where SO<sub>2</sub> and NO<sub>x</sub> emissions are monitored. (40 CFR Part 60.49Da).
- Install, calibrate, maintain, and operate a CEMS, and record the output of the system, for measuring SO<sub>2</sub>concentration (in ppm), volumetric gas flow (in scfh), and SO<sub>2</sub> mass emissions (in lb/hr) discharged to the atmosphere; a NO<sub>X</sub>-diluent continuous emission monitoring system (consisting of a NO<sub>X</sub> pollutant concentration monitor and an O<sub>2</sub>or CO<sub>2</sub> diluent gas monitor) with an automated data acquisition and handling system for measuring and recording NO<sub>x</sub> concentration (in ppm), O<sub>2</sub> or CO<sub>2</sub> concentration (in percent O<sub>2</sub> or CO<sub>2</sub>) and NO<sub>x</sub> emission rate (in lb/mmBtu) discharged to the atmosphere; CO<sub>2</sub> continuous emission monitoring system and a flow monitoring system with an automated data acquisition and handling system for measuring and recording CO<sub>2</sub> concentration (in ppm or percent), volumetric gas flow (in scfh), and CO<sub>2</sub> mass emissions (in tons/hr) discharged to the atmosphere; a continuous opacity monitoring system with the automated data acquisition and handling system for measuring and recording the opacity of emissions (in percent opacity) discharged to the atmosphere, The owner or operator shall determine and record the heat input rate, in units of mmBtu/hr, to each affected unit for every hour or part of an hour any fuel is combusted.
- Install, calibrate, maintain, and operate a CEMS, and record the output of the system, for measuring SO<sub>2</sub> and NOx emissions and either O2 or CO2. If the owner or operator has installed and certified a SO<sub>2</sub> and/or NOx and either an O2 or CO2 continuous emissions monitoring system (CEMS) according to the requirements of 40 CFR Part 75.20(c)(1) and appendix A to Part 75, and is continuing to meet the ongoing quality assurance requirements of 40 CFR Part 75.21 and appendix B to Part 75, that CEMS may be used to meet the requirements of 60.49da. When relative accuracy testing is conducted, SO<sub>2</sub> and NOx concentration data and CO<sub>2</sub> (or O<sub>2</sub>) data are collected simultaneously; and in addition to meeting the applicable SO<sub>2</sub> and CO<sub>2</sub> (or O<sub>2</sub>) relative accuracy specifications in Figure 2 of appendix B to 40 CFR Part 75, the relative accuracy (RA) standard in section 13.2 of Performance Specification 2 in appendix B to 40 CFR Part 60 is met when the RA is calculated on a lb/MMBtu basis; and the reporting requirements of 40 CFR Part 60.51Da are met. The SO<sub>2</sub>, NOx and CO<sub>2</sub> (or O<sub>2</sub>) data reported to meet the requirements of 40 CFR Part 60.51Da shall not include substitute data values derived from the missing data procedures in Subpart D of Part 75, nor shall the SO<sub>2</sub> or NOx data have been bias adjusted according to the procedures of Part 75.

#### BUREAU OF AIR POLLUTION CONTROL

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### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

## **Section VI. Specific Operating Conditions (continued)**

- B. Emission Unit #S2.002 (continued)
  - NAC 445B.3405 (NAC 445B.316) <u>Part 70 Pr</u>ogram 4. Monitoring, Record keeping, Reporting and Compliance
    - Monitoring (continued)
      - (6) Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the SO2 concentration (in ppm), volumetric gas flow (in SCFH), and SO2 mass emissions (in lb/hr and lb/MMBtu), as measured by the CEMS required in B.4.b.(5) of this section, on a 1-hour, 24-hour and 30-day periods. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications and the requirements prescribed in NAC 445B.256 to NAC 445B.267, 40 CFR Part 60.47Da, 40 CFR Part 60, Appendix B, Performance Specifications, 40 CFR Part 75, Part 75.11, 40 CFR Part 75 Subpart B; and the requirements for the annual Relative Accuracy Test Audit, as prescribed in 40 CFR Part 60, Appendix
      - (7) The results of the 1-hour average for SO2 emissions (in lb/hr), determined in B.4 of this section, shall be divided by 2 to obtain the average Sulfur emissions in lb/hour.
      - (8) Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the NOx concentration (in ppm), volumetric gas flow (in SCFH), and NOx emissions rate (in lb/MMBtu and ton/year), as measured by the CEMS required in B.4.b.(4) and (5) of this section, on a 1-hour, 24-hour, 30-day, monthly and 12-month rolling period. The monthly emissions will be determined at the end of each calendar month as the sum of each total daily emissions as determined for each day of the calendar month. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications and the requirements prescribed in NAC 445B.256 to NAC 445B.267, 40 CFR Part 60, Appendix B, Performance Specification 2,
      - (9) The CEMS under B.4.b.(3), (4), and (5) are operated and data recorded during all periods of operation of the affected facility including periods of startup, shutdown, malfunction or emergency conditions, except for CEMS breakdowns, repairs, calibration checks, and zero and span adjustments.

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## **Section VI. Specific Operating Conditions (continued)**

- B. Emission Unit #S2.002 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program Monitoring, Record keeping, Reporting and Compliance
    - Monitoring (continued)
      - (10) When it becomes necessary to supplement CEMS data to meet the minimum data requirements in 40 CFR Part 60.49Da(f), the owner or operator shall use the reference methods and procedures as specified in 40 CFR Part 60.49Da(h). Acceptable alternative methods and procedures are given in 40 CFR Part 60.49Da(j).
        - Method 6 of appendix A of Part 60 shall be used to determine the SO2 concentration at the same location as the SO2 monitor. Samples shall be taken at 60-minute intervals. The sampling time and sample volume for each sample shall be at least 20 minutes and 0.020 dscm (0.71 dscf). Each sample represents a 1-hour
        - (ii) Method 7 of appendix A of Part 60 shall be used to determine the NOX concentration at the same location as the NOX monitor. Samples shall be taken at 30-minute intervals. The arithmetic average of two consecutive samples represents a 1-hour average.
        - (iii) The emission rate correction factor, integrated bag sampling and analysis procedure of Method 3B of appendix A of Part 60 shall be used to determine the O2 or CO2 concentration at the same location as the O2 or CO2 monitor. Samples shall be taken for at least 30 minutes in each hour. Each sample represents a 1-hour average.
        - (iv) The procedures in Method 19 of appendix A of Part 60 shall be used to compute each 1-hour average concentration in ng/J (lb/MMBtu) heat input.
      - (11) Data from a continuous flow monitoring system and moisture monitoring system as applicable as required in B.4, certified according to the requirements of 40 CFR Part 75.20(c) and appendix A to Part 75, and continuing to meet the applicable quality control and quality assurance requirements of 40 CFR Part 75.21 and appendix B to Part 75 of this chapter, may be used to show continual compliance with the heat input rate in mmBtu/hr as required in B.3.a. Flow rate data and moisture data as applicable, reported to meet the requirements of this permit shall not include substitute data values derived from the missing data procedures in subpart D of Part 75, nor shall the data have been bias adjusted according to the procedures of Part 75. Other methods of determining the heat input rate may be used with the approval of the Director.

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## **Section VI. Specific Operating Conditions (continued)**

- B. Emission Unit #S2.002 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program Monitoring, Record keeping, Reporting and Compliance
    - Monitoring (continued)
      - (12) Install, calibrate, operate and maintain a Continuous Data Collection System (CDCS) to continuously record the opacity (in percent opacity) as measured by the continuous opacity monitoring system required in B.4.b.(3) and (4) of this section. The CDCS will be installed, calibrated, operated and maintained in accordance with the manufacturer's specifications and the requirements prescribed in NAC 445B.256 to NAC 445B.267, 40 CFR Part 60.47Da(a), 40 CFR Part 60, Appendix B, Performance Specification 1, 40 CFR Part 75.10 and 40 CFR Part 75.14.
      - (13) Install, calibrate, operate and maintain a fuel flow meter to continuously measure the volume of No. 2 distillate fuel oil and "on-spec" used oil (in gallons) combusted in S2.002. The fuel flow meter will be installed at an appropriate location in the fuel delivery system to accurately and continuously measure the fuel combusted in **S2.002** in accordance with the requirements prescribed in 40 CFR Part 75.
      - (14) Using either the Flow Proportional or Manual Method described in 40 CFR Part 75, Appendix D 2.2.1, 2.2.3, or 2.2.4 prepare a sample representative of the No. 2 distillate fuel oil and "on-spec" used oil combusted in **S2.002** for each day (or a composite sample representative of the entire tank upon delivery of No. 2 distillate fuel oil and "on-spec" used oil to the tank) while combusting that fuel. The sulfur content of the fuel oil sample shall be determined in accordance with the requirements prescribed in 40 CFR Part 75, Appendix D or the CEMS required in B.4.b.(3),(4) and (5). The gross calorific value of this sample will be determined in accordance with ASTM D240-87 (Re-approved 1991), "Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter" or ASTM D2382-88, "Standard Test Method for Heat or Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High Precision Method) and the requirements prescribed in 40 CFR Part 75, Appendix F, Section 3.3.6.2." Alternatively, an estimated maximum gross calorific value of 20,000 Btu per pound (Btu/lb) @ 7.4 pounds per gallon (lb/gal) for No. 2 distillate fuel oil may be used.
      - (15) Monitor on at least a weekly basis the differential pressure drop across the baghouse control system for **S2.002**.
      - (16) On an annual basis, perform an inspection of the baghouse system for \$2.002 including a visual inspection of the bags and all connecting points. Annual baghouse inspection records must show that observations were made and include records of any corrective actions taken.
      - (17) Monitor the hours of operation of **S2.002** on a daily basis.

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## **Section VI. Specific Operating Conditions** (continued)

#### B. Emission Unit #S2.002 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) Part <u>70 Program</u>
  Monitoring, Record keeping, Reporting and Compliance (Continued)
  - c. 40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the date of initial startup, Permittee will:

- (1) Install, calibrate, operate and maintain devices for the measurement of the pressure drop across the baghouse controlling emissions from **S2.002**.
- (2) Conduct and record a reading of the baghouse pressure drop across the inlet and outlet of the baghouse controlling emissions from **S2.002** once during each week of operation. Record any monitored excursions from the indicator range and record any corrective actions taken.
- (3) The indicator range for the baghouse pressure drop shall be between **1.0** and **9.5** inches of water for the baghouse controlling emissions from **S2.002**. Excursions shall be defined as anytime the baghouse pressure drop falls outside this indicator range.
- (4) Conduct and record a baghouse inspection on an annual basis.
- (5) The required monitoring established in c.(1) through (4) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each week, or part of a week that **S2.002** is operating:
  - (i) Results of the reading of the pressure drop across the baghouse controlling emissions from **S2.002**, each week that **S2.002** is in operation.
  - (ii) Results and verification of the annual baghouse inspection and documentation of the inspection date of the baghouse controlling emissions from **S2.002**, and any corrective actions taken.

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## **Section VI. Specific Operating Conditions** (continued)

#### B. Emission Unit #S2.002 (continued)

4. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>
Monitoring, Record keeping, Reporting and Compliance (Continued)

#### d. Recordkeeping

**The Permittee** will maintain a contemporaneous log containing at a minimum, the following recordkeeping for each day, or part of a day that **S2.002** is operating:

- (1) Follow the notification and recordkeeping provisions of 40 CFR Part 60.7 and 60.19.
- (2) The total hourly quantity of:
  - (i) Coal (in tons) combusted, for each hour of operation based on the data recorded by the CDCS as required in B.4.b.(2) of this section.
  - (ii) No. 2 distillate fuel oil and "on-spec" used oil (in gallons) combusted, for each day of operation, as provided by the fuel flow meter required in B.4.b.(13) of this section.
- (3) Daily hours of operation:
  - (i) The total daily hours of operation for the corresponding date.
  - (ii) For boiler start-up, flame stabilization, and shut down, record the total hours of start-up, flame stabilization, and shut down operations for the corresponding date.
- (4) (i) The average hourly heat input of the coal, fuel oil, or "on-spec" used oil combusted, in MMBtu per hour. The hourly heat inputs will be calculated as follows and as described in B.4.b(11) of this section:

$$HI = Q_w * (1/F_c) * (\%CO_{2w}/100)$$

#### Where:

HI = Hourly heat input rate during unit operation, mmBtu/hr

 $Q_w$  = Hourly average volumetric flow rate during unit operation, wet basis, scfh

F,  $F_c$ = factor representing a ratio of the volume of dry flue gases generated to the caloric value of the fuel combusted (F), and a factor representing a ratio of the volume of  $CO_2$ generated to the calorific value of the fuel combusted ( $F_c$ ), respectively. Table 1 lists the values of F and  $F_c$  for different fuels.

Table 1: F and F<sub>c</sub> Factors<sup>1</sup>

Fuel	F-factor (dscf/mmBtu)	$F_{C}$ -factor (scf $CO_2$ /mm $Btu$ )		
Coal (as defined by ASTM D388–99):				
Anthracite	10,100	1,970		
Bituminous	9,780	1,800		
Sub-bituminous	9,820	1,840		
Lignite	9,860	1,910		
Oil	9,190	1,420		

<sup>&</sup>lt;sup>1</sup>Determined at standard conditions: 20 °C (68 °F) and 29.92 inches of mercury.

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## **Section VI. Specific Operating Conditions** (continued)

#### B. Emission Unit #S2.002 (continued)

4. NAC 445B.3405 (NAC 445B.316) *Part 70 Program*Monitoring, Record keeping, Reporting and Compliance (Continued)

#### d. Recordkeeping

(4) (ii) Equations F–7a and F–7b may be used in lieu of the F or F<sub>c</sub> factors specified in the table above to calculate a site-specific dry-basis F factor (dscf/mmBtu) or a site-specific F<sub>c</sub> factor (scf CO<sub>2</sub>/mmBtu), on either a dry or wet basis. At a minimum, the site-specific F or F<sub>c</sub> factor must be based on 9 samples of the fuel. Fuel samples taken during each run of a RATA are acceptable for this purpose. The site-specific F or F<sub>c</sub> factor must be re-determined at least annually, and the value from the most recent determination must be used in the emission calculations. Alternatively, the previous F or F<sub>c</sub> value may continue to be used if it is higher than the value obtained in the most recent determination. The owner or operator shall keep records of all site-specific F or F<sub>c</sub> determinations, active for at least 3 years. (Calculate all F- and F<sub>c</sub> factors at standard conditions of 20 °C (68 °F) and 29.92 inches of mercury).

Eq. F-7a: 
$$F = \frac{3.64(\%H) + 1.53(\%C) + 0.57(\%S) + 0.14(\%N) - 0.46(\%O)}{GCV} \times 10^{6}$$

Eq. F-7b: 
$$F_c = \frac{321 \times 10^3 (\%C)}{GCV}$$

#### Where:

H, C, S, N, and O are content by weight of hydrogen, carbon, sulfur, nitrogen, and oxygen (expressed as percent), respectively, as determined on the same basis as the gross calorific value (GCV) by ultimate analysis of the fuel combusted using ASTM D3176–89 (Reapproved 2002), Standard Practice for Ultimate Analysis of Coal and Coke, (solid fuels), ASTM D5291–02, Standard Test Methods for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Petroleum Products and Lubricants, (liquid fuels) or computed from results using ASTM D1945–96 (Reapproved 2001), Standard Test Method for Analysis of Natural Gas by Gas Chromatography, or ASTM D1946–90 (Reapproved 2006), Standard Practice for Analysis of Reformed Gas by Gas Chromatography, (gaseous fuels) as applicable.

GCV is the gross calorific value (Btu/lb) of the fuel combusted determined by ASTM D5865–01a, Standard Test Method for Gross Calorific Value of Coal and Coke, and ASTM D240–00, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, or ASTM D4809–00, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method) for oil; and ASTM D3588–98, Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density of Gaseous Fuels, ASTM D4891–89 (Reapproved 2006), Standard Test Method for Heating Value of Gases in Natural Gas Range by Stoichiometric Combustion, GPA Standard 2172–96 Calculation of Gross Heating Value, Relative Density and Compressibility Factor for Natural Gas Mixtures from Compositional Analysis, GPA Standard 2261–00 Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography, or ASTM D1826–94 (Reapproved 1998), Standard Test Method for Calorific (Heating) Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, for gaseous fuels, as applicable.

(iii) For affected units that combust a combination of a fuel (or fuels) listed in Table 1 above with any fuel(s) not listed in Table 1, the F or  $F_c$  value is subject to the Administrator's approval under.

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#### B. Emission Unit #S2.002 (continued)

4. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>
Monitoring, Record keeping, Reporting and Compliance (Continued)

#### d. Recordkeeping

(4) (iv) For affected units that combust combinations of fuels listed in Table 1 above, prorate the F or F<sub>c</sub> factors determined by section B.4.d(i) or B.4.d(ii) in accordance with the applicable formula as follows:

$$F = \sum_{i=1}^{n} X_i F_i$$
  $F_c = \sum_{i=1}^{n} X_i (F_c)_i$ 

Where,

 $X_i$ = Fraction of total heat input derived from each type of fuel (*e.g.*, natural gas, bituminous coal, wood). Each  $X_i$  value shall be determined from the best available information on the quantity of fuel combusted and the GCV value, over a specified time period. The owner or operator shall explain the method used to calculate  $X_i$  in the hardcopy portion of the monitoring plan for the unit. The  $X_i$  values may be determined and updated either hourly, daily, weekly, or monthly. In all cases, the prorated F-factor used in the emission calculations shall be determined using the  $X_i$  values from the most recent update.

 $F_i$  or  $(F_c)_i$ = Applicable F or Fc factor for each fuel type determined in accordance with section B.4.d(i) or B.4.d(ii).

n = Number of fuels being combusted in combination.

- (v) As an alternative to prorating the F or Fc factor as described in section B.4.d.(iv), a "worst-case" F or F<sub>c</sub> factor may be reported for any unit operating hour. The worst-case F or F<sub>c</sub> factor shall be the highest F or F<sub>c</sub> value for any of the fuels combusted in the unit.
- (5) The hourly emission rate of PM and PM10 each:
  - (i) In pounds per hour (lbs/hr). The hourly emission rates will be calculated from the hourly heat input rate, as determined in B.4.b(11) of this section, and the emission factor derived in B.4.a.(12) of this section.
- (6) The emission rates of sulfur and SO2 each, in pounds per hour (lbs/hr) and pounds per million Btu (lbs/MMBtu) measured by the CEMS required in B.4.b.(3),(4) and (5) of this section for each averaging period described below:
  - (i) The sulfur emissions in pounds per hour (lbs/hr) for each 1-hour period. Sulfur emissions will be one-half of the SO2 emissions measured.
  - (ii) The Sulfur and SO2 emissions in pounds per million Btu (lbs/MMBtu)

The compliance determination procedures established in 40 CFR Part 60 will be used to convert the continuous monitoring data into units of the applicable standards (e.g. lb/MMBtu and lbs/hr, 24-hour and 30-day rolling average periods and percent reduction).

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## **Section VI. Specific Operating Conditions (continued)**

- B. Emission Unit #S2.002 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part 70 Program 4. Monitoring, Record keeping, Reporting and Compliance (Continued)
    - Recordkeeping (continued)
      - The annual emissions rate of NOx in tons per year (tons/yr) and pounds per million Btu (lbs/MMBtu) measured by the CEMS required in B.4.b(3), (4) and (5) of this section. The compliance determination procedures established in 40 CFR Part 60.48Da(d) will be used to convert the continuous monitoring data into units of the applicable standard (e.g. lb/MMBtu, 24-hour, 30-day, annual rolling average periods, percent reduction and 1hour average).
      - The measured opacity (in percent opacity) from the continuous opacity monitoring system required in B.4.b.(11) of this section. The opacity will be determined from reducing all data from the successive 10-second readings and recorded for the following:
        - (i) Each 6-minute average, except for one 6-minute period per hour of up to 27 percent opacity as established in NAC 445B.22017.1(b) and as set forth in 40 CFR Part 60.13(h).
        - (ii) Each 6-minute average, except for one 6-minute period per hour of up to 27 percent opacity as established in 40 CFR Part 60.42Da(b).
      - (9) Observations made and any corrective actions taken as a result of the baghouse inspection required in B.4.b.(16).
      - (10) Retain all records of laboratory analyses performed to show that all "on-spec" used oil is nonhazardous as defined by the requirements of 40 CFR Part 279, Standards for the Management of Used Oil.
      - (11) Retain recordkeeping which documents that the all of the "on-spec" used oil burned in **S2.002** is generated only in Sierra Pacific Power Company facilities.
      - (12) Retain all required records in accordance with Section V.A of this operating permit.

#### Reporting e.

Permittee will:

- (1) Report all excess emissions from **S2.002** as required in Section III.B and III.C of this operating permit.
- (2) Report excess emissions and monitoring system performance (MSP) to the Director and to the Administrator of U.S. EPA each calendar quarter. The quarterly reports will be postmarked by the 30<sup>th</sup> day following the end of each calendar quarter. Each excess emission and MSP report will include the information required in 40 CFR Part 60.7(c). Periods of excess emissions and monitoring systems (MS) downtime to be reported will be in accordance with 40 CFR Part 60.45(g)(1) through (3). [40 CFR Part 60.45(g)]
- (3) Report all deviations as required in Sections V.C and V.F of the operating permit.
- (4) Submit semi-annual monitoring reports as required in Section V.C of this operating permit.
- (5) Certify compliance with all applicable requirements as required in Section V.E of this operating permit.
- 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program **Shielded Requirements**

No shielded provisions are established for these emission units.

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## **Section VI. Specific Operating Conditions** (continued)

C. Emission Unit #S2.003 location North 4525.39 km, East 487.28 km, UTM (Zone 11)

#### C. System 03A - Coal Handling System A

- S 2.003 Rotary (Radial) Stacker and associated conveyors, engineered by Watkins Engineering
  - 1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Air Pollution Equipment</u>
    - a. Emissions from **S2.003** shall be controlled by a control system consisting of a baghouse to control particulate matter emissions.
    - b. Stack Parameters:

Manufacture: Dustex/American Precision

Stack Height: 11.0 ft
Stack Diameter: 1.5 ft
Nominal Exhaust Temperature: Ambient
Nominal Volumetric Flowrate: 900.0 acfm

- c. Part A of the control system for the 3,500 feet of covered coal handling conveyors consisting of maintaining the covered coal handling conveyors under negative pressure so that the emissions are captured and exhausted through the dust collectors associated with **S2.003 through S2.012**. Water and/or surfactant application will be added as needed at the following uncovered points along the 3,500 feet of covered coal handling conveyors to minimize fugitive particulate emissions from the open coal storage piles: rail trestle unloading area, rotary plow feeder discharge chute at the coal unloading hoppers, discharge point from the conveyor carrying coal from the rotary plow feeder discharge chute, and discharge from the reclaim hoppers by the two vibratory feeders.
- 2. NAC 445B.3405 (NAC 445B.316) *Part 70 Program*

#### **Emission Limits**

On and after the date of startup of **S2.003** Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.003** the following pollutants in excess of the following specified limits:

- a. NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **74.74** pounds per hour.
- b. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.13** pound per hour.
- c. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **0.13** pound per hour.
- d. NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **S2.003** will not equal or exceed **20%** in accordance with NAC 445B.22017.
- e. 40 CFR Part 60.252(c) <u>Enforceable New Source Performance Standard Requirement</u> The opacity from **S2.003** will not equal or exceed **20**%.

#### BUREAU OF AIR POLLUTION CONTROL

# Facility ID No. A0375 Permit No. AP4911-0457.01

## PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

## **Section VI. Specific Operating Conditions (continued)**

#### C. Emission Unit #S2.003 (continued)

NAC 445B.3405 (NAC 445B.316) Part 70 Program 3.

**Operating Parameters** 

- Maximum allowable throughput rate for \$2.003 will not exceed 800.0 tons of coal per any one-hour period.

S2.003 may operate 8,760 hours per calendar year.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Monitoring, Record keeping, Reporting and Compliance

40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the date of initial startup, Permittee will:

- Install, calibrate, operate and maintain devices for the measurement of the internal pressure of the baghouse controlling emissions from **S2.003**.
- (2) Conduct and record a reading of the baghouse internal pressure controlling emissions from **S2.003** once per month. Record any monitored excursions from the indicator range and record any corrective actions taken.
- The indicator range for the baghouse internal pressure shall be between 1.0 to 6.0 inches of water for the baghouse controlling emissions from \$2.003. Excursions shall be defined as anytime the baghouse internal pressure falls outside this indicator range.
- Conduct and record a baghouse inspection on an annual basis.
- The required monitoring established in a.(1) through (4) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each month, or part of the month that \$2,003 is operating:
  - (i) Results of the reading of the internal pressure of the baghouse controlling emissions from S2.003.
  - (ii) Results and verification of the annual baghouse inspection and documentation of the inspection date of the baghouse controlling emissions from \$2.003, and any corrective actions taken.

#### Permittee will: b.

- On a monthly basis, record the throughput (tons) of coal handled by **S2.003**.
- On a monthly basis, record the hours of operation, for **S2.003**.
- As a means of showing compliance with the opacity limit prescribed in C.2 of this section, within 180 days from the date of issuance of this operating permit and 90 days prior to the expiration of this operating permit, conduct and record a Method 9 determination using the procedures in 40 CFR 60.11 to determine the opacity from the stack discharge of S2.003.
- On an annual basis, perform an inspection of the S2.003 baghouse including a visual inspection of the bags and all connecting points. Annual baghouse inspection records must show that observations were made and include records of any corrective actions taken.
- On a quarterly basis for **\$2.003**, perform and record visible emissions inspection of the opacity of the discharges from the exhaust stack of \$2.003. If any visible emissions are documented, provide immediate corrective action in the affected control device. Visible emissions inspection records must show that observations were made and include records of any corrective actions taken. A method 9 visible emissions test shall be conducted upon completion of corrective actions.
- Monitor and record that the water/surfactant sprays located along the uncovered points of the 3,500 feet of covered coal handling conveyors are maintained in accordance with the standard facilities operation and maintenance guidelines, on a monthly basis. Perform immediate corrective action for all inoperative sprays found. Inspection records must show that observations were made and include records of any corrective actions taken.
- 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program **Shielded Requirements**

No shielded provisions are established for these emission units.

#### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

## Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

## **Section VI. Specific Operating Conditions** (continued)

D. Emission Unit #S2.004 location North 4525.39 km, East 487.28 km, UTM (Zone 11)

#### D. System 03B - Coal Handling System B

- S 2.004 Transfer Tower A and associated conveyors, engineered by Stone & Webster
  - 1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Air Pollution Equipment</u>
    - a. Emissions from **S2.004** shall be controlled by a control system consisting of a baghouse to control particulate matter emissions.
    - b. Stack Parameters:

Manufacture: MicroPul
Stack Height: 57.0 ft
Stack Diameter: 1.8 ft
Nominal Exhaust Temperature: Ambient
Nominal Volumetric Flowrate: 9,000.0 acfm

- c. Part B of the control system for the 3,500 feet of covered coal handling conveyors consisting of maintaining the covered coal handling conveyors under negative pressure so that the emissions are captured and exhausted through the dust collectors associated with **S2.003 through S2.012**. Water and/or surfactant application will be added as needed at the following uncovered points along the 3,500 feet of covered coal handling conveyors to minimize fugitive particulate emissions from the open coal storage piles: rail trestle unloading area, rotary plow feeder discharge chute at the coal unloading hoppers, discharge point from the conveyor carrying coal from the rotary plow feeder discharge chute, and discharge from the reclaim hoppers by the two vibratory feeders.
- 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

On and after the date of startup of **S2.004** Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.004** the following pollutants in excess of the following specified limits:

- a. NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **74.74** pounds per hour.
- b. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **1.31** pounds per hour.
- c. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **1.31** pounds per hour.
- d. NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **S2.004** will not equal or exceed **20%** in accordance with NAC 445B.22017.
- e. 40 CFR Part 60.252(c) <u>Enforceable New Source Performance Standard Requirement</u> The opacity from **S2.004** will not equal or exceed **20**%.

#### BUREAU OF AIR POLLUTION CONTROL

# Facility ID No. A0375 Permit No. AP4911-0457.01

## PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

## **Section VI. Specific Operating Conditions (continued)**

- D. Emission Unit #S2.004 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part 70 Program 3. **Operating Parameters** 
    - Maximum allowable throughput rate for **S2.004** will not exceed **800.0** tons of coal per any one-hour period.

**S2.004** may operate **8,760** hours per calendar year.

- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - Monitoring, Record keeping and Compliance
  - 40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the date of initial startup, Permittee will:

- Install, calibrate, operate and maintain devices for the measurement of the internal pressure of the baghouse controlling emissions from S2.004.
- (2) Conduct and record a reading of the baghouse internal pressure controlling emissions from **S2.004**, on a monthly basis. Record any monitored excursions from the indicator range and record any corrective actions taken.
- The indicator range for the baghouse internal pressure shall be between 1.0 to 6.0 inches of water for the baghouse controlling emissions from \$2.004. Excursions shall be defined as anytime the baghouse internal pressure falls outside this indicator range.
- Conduct and record a baghouse inspection on an annual basis.
- The required monitoring established in a.(1) through (4) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each month, or part of the month that \$2.004 is operating:
  - Results of the reading of the internal pressure of the baghouse controlling emissions from S2.004. (i)
  - (ii) Results and verification of the annual baghouse inspection and documentation of the inspection date of the baghouse controlling emissions from **S2.004**, and any corrective actions taken.

#### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

## Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

**Issued to:** Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

## **Section VI. Specific Operating Conditions** (continued)

#### D. Emission Unit #S2.004 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) *Part 70 Program* Monitoring, Record keeping and Compliance
  - b. Permittee will:
    - (1) On a monthly basis, record the throughput (tons) of coal handled by **S2.004**.
    - (2) On a monthly basis, record the hours of operation, for **S2.004**.
    - (3) Conduct and record a Method 5 or 17 and a Method 201A (or an equivalent method as approved in advance by the Director) performance test for PM and PM<sub>10</sub> on the exhaust stack of **S2.004** consisting of three valid runs within 180 days from the date of issuance of this operating permit and 90 days prior to the expiration of this operating permit. The sampling time and sample volume for each run shall be at least 120 minutes and 1.70 dscm (60 dscf). The Method 201A performance test must be conducted in accordance with 40 CFR Part 51, Appendix M, Method 201A. The Method 5 or 17 performance test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 5 or 17.
    - (4) The Method 201A performance test may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 test performed under this provision shall be considered PM<sub>10</sub> emissions for compliance demonstration purposes.
    - (5) As a means of showing compliance with the opacity limit prescribed in D.2 of this section, within 180 days from the date of issuance of this operating permit and 90 days prior to the expiration of this operating permit, conduct and record a Method 9 determination using the procedures in 40 CFR 60.11 to determine the opacity from the stack discharge of **S2.004**.
    - (6) On an annual basis, perform an inspection of the **S2.004** baghouse including a visual inspection of the bags and all connecting points. Annual baghouse inspection records must show that observations were made and include records of any corrective actions taken.
    - (7) On a quarterly basis for **S2.004**, perform and record visible emissions inspection of the opacity of the discharges from the exhaust stack of **S2.004**. If any visible emissions are documented, provide immediate corrective action in the affected control device. Visible emissions inspection records must show that observations were made and include records of any corrective actions taken. A method 9 visible emissions test shall be conducted upon completion of corrective actions.
    - (8) Monitor and record that the water/surfactant sprays located along the uncovered points of the 3,500 feet of covered coal handling conveyors are maintained in accordance with the standard facilities operation and maintenance guidelines, on a monthly basis. Perform immediate corrective action for all inoperative sprays found. Inspection records must show that observations were made and include records of any corrective actions taken.
- 5. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Shielded Requirements</u>

No shielded provisions are established for these emission units.

#### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

## Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

## **Section VI. Specific Operating Conditions (continued)**

E. Emission Unit #S2.005 location North 4525.39 km, East 487.28 km, UTM (Zone 11)

#### E. System 03C - Coal Handling System C

- S 2.005 Reclaim Area Hopper and associated conveyors, engineered by Stone & Webster
  - 1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Air Pollution Equipment</u>
    - a. Emissions from **S2.005** shall be controlled by a control system consisting of a baghouse to control particulate matter emissions.
    - b. Stack Parameters:

Manufacture:DustexStack Height:18.0 ftStack Diameter:1.4 ftNominal Exhaust Temperature:AmbientNominal Volumetric Flowrate:3,000.0 acfm

- c. Part C of the control system for the 3,500 feet of covered coal handling conveyors consisting of maintaining the covered coal handling conveyors under negative pressure so that the emissions are captured and exhausted through the dust collectors associated with **S2.003 through S2.012**. Water and/or surfactant application will be added as needed at the following uncovered points along the 3,500 feet of covered coal handling conveyors to minimize fugitive particulate emissions from the open coal storage piles: rail trestle unloading area, rotary plow feeder discharge chute at the coal unloading hoppers, discharge point from the conveyor carrying coal from the rotary plow feeder discharge chute, and discharge from the reclaim hoppers by the two vibratory feeders.
- 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

On and after the date of startup of **S2.005** Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.005** the following pollutants in excess of the following specified limits:

- a. NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **74.74** pounds per hour.
- b. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.44** pound per hour.
- c. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **0.44** pound per hour.
- d. NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **S2.005** will not equal or exceed **20%** in accordance with NAC 445B.22017.
- e. 40 CFR Part 60.252(c) <u>Enforceable New Source Performance Standard Requirement</u> The opacity from **S2.005** will not equal or exceed **20**%.

#### BUREAU OF AIR POLLUTION CONTROL

# Facility ID No. A0375 Permit No. AP4911-0457.01

## PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

## **Section VI. Specific Operating Conditions (continued)**

#### Emission Unit #S2.005 (continued)

- NAC 445B.3405 (NAC 445B.316) Part 70 Program 3. **Operating Parameters** 
  - Maximum allowable throughput rate for **S2.005** will not exceed **800.0** tons of coal per any one-hour period.

**S2.005** may operate **8,760** hours per calendar year.

- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - Monitoring, Record keeping and Compliance
  - 40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the date of initial startup, Permittee will:

- Install, calibrate, operate and maintain devices for the measurement of the internal pressure of the baghouse controlling emissions from S2.005.
- (2) Conduct and record a reading of the baghouse internal pressure controlling emissions from **S2.005** on a monthly basis. Record any monitored excursions from the indicator range and record any corrective actions taken.
- The indicator range for the baghouse internal pressure shall be between 1.0 to 6.0 inches of water for the baghouse controlling emissions from \$2.005. Excursions shall be defined as anytime the baghouse internal pressure falls outside this indicator range.
- Conduct and record a baghouse inspection on an annual basis.
- The required monitoring established in a.(1) through (4) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each month, or part of the month that \$2.005 is operating:
  - Results of the reading of the internal pressure of the baghouse controlling emissions from S2.005. (i)
  - (ii) Results and verification of the annual baghouse inspection and documentation of the inspection date of the baghouse controlling emissions from **S2.005**, and any corrective actions taken.

#### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375 Permit No. AP4911-0457.01

## PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

## **Section VI. Specific Operating Conditions (continued)**

#### Emission Unit #S2.005 (continued)

- NAC 445B.3405 (NAC 445B.316) Part 70 Program 4. Monitoring, Record keeping and Compliance
  - Permittee will:
    - On a monthly basis, record the throughput (tons) of coal handled by **S2.005**. (1)
    - On a monthly basis, record the hours of operation, for **S2.005**.
    - Conduct and record a Method 5 or 17 and a Method 201A (or an equivalent method as approved in advance by the Director) performance test for PM and PM<sub>10</sub> on the exhaust stack of **S2.005** consisting of three valid runs within 180 days from the date of issuance of this operating permit and 90 days prior to the expiration of this operating permit. The sampling time and sample volume for each run shall be at least 120 minutes and 1.70 dscm (60 dscf). The Method 201A performance test must be conducted in accordance with 40 CFR Part 51, Appendix M, Method 201A. The Method 5 or 17 performance test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 5 or 17.
    - (4) The Method 201A performance test may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 test performed under this provision shall be considered PM<sub>10</sub> emissions for compliance demonstration purposes.
    - (5) As a means of showing compliance with the opacity limit prescribed in E.2 of this section, within 180 days from the date of issuance of this operating permit and 90 days prior to the expiration of this operating permit, conduct and record a Method 9 determination using the procedures in 40 CFR 60.11 to determine the opacity from the stack discharge of S2.005.
    - On an annual basis, perform an inspection of the S2.005 baghouse including a visual inspection of the bags and all connecting points. Annual baghouse inspection records must show that observations were made and include records of any corrective actions taken.
    - (7) On a quarterly basis for **S2.005**, perform and record visible emissions inspection of the opacity of the discharges from the exhaust stack of **S2.005**. If any visible emissions are documented, provide immediate corrective action in the affected control device. Visible emissions inspection records must show that observations were made and include records of any corrective actions taken. A method 9 visible emissions test shall be conducted upon completion of corrective actions.
    - Monitor and record that the water/surfactant sprays located along the uncovered points of the 3,500 feet of covered coal handling conveyors are maintained in accordance with the standard facilities operation and maintenance guidelines, on a monthly basis. Perform immediate corrective action for all inoperative sprays found. Inspection records must show that observations were made and include records of any corrective actions taken.
- 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program **Shielded Requirements**

No shielded provisions are established for these emission units.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

# Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions** (continued)

F. Emission Unit #S2.006 location North 4525.39 km, East 487.28 km, UTM (Zone 11)

### F. System 03D - Coal Handling System D

- S 2.006 Crusher Tower and associated conveyors, engineered by Pennsylvania Crusher Corporation, model no. TKK Granulator, Serial No. 7117 and 7118
  - 1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Air Pollution Equipment
    - Emissions from S2.006 shall be controlled by a control system consisting of a baghouse to control particulate matter emissions.
    - b. Stack Parameters:

Manufacture: MicroPul
Stack Height: 66.0 ft
Stack Diameter: 1.8 ft
Nominal Exhaust Temperature: Ambient
Nominal Volumetric Flowrate: 12,000.0 acfm

- c. Part D of the control system for the 3,500 feet of covered coal handling conveyors consisting of maintaining the covered coal handling conveyors under negative pressure so that the emissions are captured and exhausted through the dust collectors associated with **S2.003 through S2.012**. Water and/or surfactant application will be added as needed at the following uncovered points along the 3,500 feet of covered coal handling conveyors to minimize fugitive particulate emissions from the open coal storage piles: rail trestle unloading area, rotary plow feeder discharge chute at the coal unloading hoppers, discharge point from the conveyor carrying coal from the rotary plow feeder discharge chute, and discharge from the reclaim hoppers by the two vibratory feeders.
- 2. NAC 445B.3405 (NAC 445B.316) *Part 70 Program*

### **Emission Limits**

On and after the date of startup of **S2.006** Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.006** the following pollutants in excess of the following specified limits:

- a. NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **74.74** pounds per hour.
- b. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **1.75** pounds per hour.
- c. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **1.75** pounds per hour.
- d. NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **S2.006** will not equal or exceed **20%** in accordance with NAC 445B.22017.
- e. 40 CFR Part 60.252(c) <u>Enforceable New Source Performance Standard Requirement</u> The opacity from **S2.006** will not equal or exceed **20**%.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

# Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions** (continued)

### F. Emission Unit #S2.006 (continued)

3. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Operating Parameters

- a. Maximum allowable throughput rate for **S2.006** will not exceed **800.0** tons of coal per any one-hour period.
- b. Hours

S2.006 may operate 8,760 hours per calendar year.

4. NAC 445B.3405 (NAC 445B.316) *Part 70 Program* 

Monitoring, Record keeping and Compliance

a. 40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the date of initial startup, Permittee will:

- (1) Install, calibrate, operate and maintain devices for the measurement of the internal pressure of the baghouse controlling emissions from **S2.006**.
- (2) Conduct and record a reading of the baghouse internal pressure controlling emissions from **S2.006** on a monthly basis. Record any monitored excursions from the indicator range and record any corrective actions taken.
- (3) The indicator range for the baghouse internal pressure shall be between **1.0 to 6.0** inches of water for the baghouse controlling emissions from **S2.006**. Excursions shall be defined as anytime the baghouse internal pressure falls outside this indicator range.
- (4) Conduct and record a baghouse inspection on an annual basis.
- (5) The required monitoring established in a.(1) through (4) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each month, or part of the month that **S2.006** is operating:
  - (i) Results of the reading of the internal pressure of the baghouse controlling emissions from **S2.006**.
  - (ii) Results and verification of the annual baghouse inspection and documentation of the inspection date of the baghouse controlling emissions from **S2.006**, and any corrective actions taken.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

# Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

**Issued to:** Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions** (continued)

### F. Emission Unit #S2.006 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) *Part 70 Program* Monitoring, Record keeping and Compliance
  - b. Permittee will:
    - (1) On a monthly basis, record the throughput (tons) of coal handled by **S2.006**.
    - (2) On a monthly basis, record the hours of operation, for **S2.006**.
    - (3) Conduct and record a Method 5 or 17 and a Method 201A (or an equivalent method as approved in advance by the Director) performance test for PM and PM<sub>10</sub> on the exhaust stack of **S2.006** consisting of three valid runs within 180 days from the date of issuance of this operating permit and 90 days prior to the expiration of this operating permit. The sampling time and sample volume for each run shall be at least 120 minutes and 1.70 dscm (60 dscf). The Method 201A performance test must be conducted in accordance with 40 CFR Part 51, Appendix M, Method 201A. The Method 5 or 17 performance test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 5 or 17.
    - (4) The Method 201A performance test may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 test performed under this provision shall be considered PM<sub>10</sub> emissions for compliance demonstration purposes.
    - (5) As a means of showing compliance with the opacity limit prescribed in F.2 of this section, within 180 days from the date of issuance of this operating permit and 90 days prior to the expiration of this operating permit, conduct and record a Method 9 determination using the procedures in 40 CFR 60.11 to determine the opacity from the stack discharge of **S2.006**.
    - (6) On an annual basis, perform an inspection of the **S2.006** baghouse including a visual inspection of the bags and all connecting points. Annual baghouse inspection records must show that observations were made and include records of any corrective actions taken.
    - (7) On a quarterly basis for **S2.006**, perform and record visible emissions inspection of the opacity of the discharges from the exhaust stack of **S2.006**. If any visible emissions are documented, provide immediate corrective action in the affected control device. Visible emissions inspection records must show that observations were made and include records of any corrective actions taken. A method 9 visible emissions test shall be conducted upon completion of corrective actions.
    - (8) Monitor and record that the water/surfactant sprays located along the uncovered points of the 3,500 feet of covered coal handling conveyors are maintained in accordance with the standard facilities operation and maintenance guidelines, on a monthly basis. Perform immediate corrective action for all inoperative sprays found. Inspection records must show that observations were made and include records of any corrective actions taken.
- 5. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Shielded Requirements</u>

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

# Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions** (continued)

G. Emission Unit #S2.007 location North 4525.39 km, East 487.28 km, UTM (Zone 11)

#### G. System 03E – Coal Handling System E

- S 2.007 Transfer Tower B and associated conveyors, engineered by Stone & Webster
  - 1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Air Pollution Equipment</u>
    - Emissions from S2.007 shall be controlled by a control system consisting of a baghouse to control particulate matter emissions.
    - b. Stack Parameters:

Manufacture: MicroPul
Stack Height: 61.0 ft
Stack Diameter: 1.8 ft
Nominal Exhaust Temperature: Ambient
Nominal Volumetric Flowrate: 8,800.0 acfm

- c. Part E of the control system for the 3,500 feet of covered coal handling conveyors consisting of maintaining the covered coal handling conveyors under negative pressure so that the emissions are captured and exhausted through the dust collectors associated with **S2.003 through S2.012**. Water and/or surfactant application will be added as needed at the following uncovered points along the 3,500 feet of covered coal handling conveyors to minimize fugitive particulate emissions from the open coal storage piles: rail trestle unloading area, rotary plow feeder discharge chute at the coal unloading hoppers, discharge point from the conveyor carrying coal from the rotary plow feeder discharge chute, and discharge from the reclaim hoppers by the two vibratory feeders.
- 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

### **Emission Limits**

On and after the date of startup of \$2.007 Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of \$2.007 the following pollutants in excess of the following specified limits:

- a. NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **74.74** pounds per hour.
- b. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **1.28** pounds per hour.
- c. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **1.28** pounds per hour.
- d. NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **S2.007** will not equal or exceed **20%** in accordance with NAC 445B.22017.
- e. 40 CFR Part 60.252(c) <u>Enforceable New Source Performance Standard Requirement</u> The opacity from **S2.007** will not equal or exceed **20**%.

### BUREAU OF AIR POLLUTION CONTROL

# Facility ID No. A0375 Permit No. AP4911-0457.01

# PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions (continued)**

- G. Emission Unit #S2.007 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part 70 Program 3. **Operating Parameters** 
    - Maximum allowable throughput rate for **S2.007** will not exceed **800.0** tons of coal per any one-hour period.

**S2.007** may operate **8,760** hours per calendar year.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Monitoring, Record keeping and Compliance

40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the date of initial startup, Permittee will:

- Install, calibrate, operate and maintain devices for the measurement of the internal pressure of the baghouse controlling emissions from **S2.007**.
- (2) Conduct and record a reading of the baghouse internal pressure controlling emissions from **S2.007** on a monthly basis. Record any monitored excursions from the indicator range and record any corrective actions taken.
- The indicator range for the baghouse internal pressure shall be between 1.0 to 6.0 inches of water for the baghouse controlling emissions from \$2.007. Excursions shall be defined as anytime the baghouse internal pressure falls outside this indicator range.
- Conduct and record a baghouse inspection on an annual basis.
- The required monitoring established in a.(1) through (4) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each month, or part of the month that \$2.007 is operating:
  - Results of the reading of the internal pressure of the baghouse controlling emissions from S2.007. (i)
  - (ii) Results and verification of the annual baghouse inspection and documentation of the inspection date of the baghouse controlling emissions from \$2.007, and any corrective actions taken.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

# Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

**Issued to:** Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions** (continued)

- G. Emission Unit #S2.007 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) *Part 70 Program* Monitoring, Record keeping and Compliance
    - b. Permittee will:
      - (1) On a monthly basis, record the throughput (tons) of coal handled by **S2.007**.
      - (2) On a monthly basis, record the hours of operation, for **S2.007**.
      - (3) Conduct and record a Method 5 or 17 and a Method 201A (or an equivalent method as approved in advance by the Director) performance test for PM and PM<sub>10</sub> on the exhaust stack of **S2.007** consisting of three valid runs within 180 days from the date of issuance of this operating permit and 90 days prior to the expiration of this operating permit. The sampling time and sample volume for each run shall be at least 120 minutes and 1.70 dscm (60 dscf). The Method 201A performance test must be conducted in accordance with 40 CFR Part 51, Appendix M, Method 201A. The Method 5 or 17 performance test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 5 or 17.
      - (4) The Method 201A performance test may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 test performed under this provision shall be considered PM<sub>10</sub> emissions for compliance demonstration purposes.
      - (5) As a means of showing compliance with the opacity limit prescribed in G.2 of this section, within 180 days from the date of issuance of this operating permit and 90 days prior to the expiration of this operating permit, conduct and record a Method 9 determination using the procedures in 40 CFR 60.11 to determine the opacity from the stack discharge of **S2.007**.
      - (6) On an annual basis, perform an inspection of the **S2.007** baghouse including a visual inspection of the bags and all connecting points. Annual baghouse inspection records must show that observations were made and include records of any corrective actions taken.
      - (7) On a quarterly basis for **S2.007**, perform and record visible emissions inspection of the opacity of the discharges from the exhaust stack of **S2.007**. If any visible emissions are documented, provide immediate corrective action in the affected control device. Visible emissions inspection records must show that observations were made and include records of any corrective actions taken. A method 9 visible emissions test shall be conducted upon completion of corrective actions.
      - (8) Monitor and record that the water/surfactant sprays located along the uncovered points of the 3,500 feet of covered coal handling conveyors are maintained in accordance with the standard facilities operation and maintenance guidelines, on a monthly basis. Perform immediate corrective action for all inoperative sprays found. Inspection records must show that observations were made and include records of any corrective actions taken.
  - 5. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Shielded Requirements</u>

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

# Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions** (continued)

H. Emission Unit #S2.008 location North 4525.39 km, East 487.28 km, UTM (Zone 11)

### H. System 03F – Coal Handling System F

S 2.008 Tripper Area Hopper and associated conveyors, engineered by Stone & Webster

1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Air Pollution Equipment</u>

- Emissions from S2.008 shall be controlled by a control system consisting of a baghouse to control particulate matter emissions.
- b. Stack Parameters:

Manufacture: Dustex
Stack Height: 200.0 ft
Stack Diameter: 1.9 ft
Nominal Exhaust Temperature: Ambient
Nominal Volumetric Flowrate: 8,800.0 acfm

- c. Part F of the control system for the 3,500 feet of covered coal handling conveyors consisting of maintaining the covered coal handling conveyors under negative pressure so that the emissions are captured and exhausted through the dust collectors associated with **S2.003 through S2.012**. Water and/or surfactant application will be added as needed at the following uncovered points along the 3,500 feet of covered coal handling conveyors to minimize fugitive particulate emissions from the open coal storage piles: rail trestle unloading area, rotary plow feeder discharge chute at the coal unloading hoppers, discharge point from the conveyor carrying coal from the rotary plow feeder discharge chute, and discharge from the reclaim hoppers by the two vibratory feeders.
- 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

### **Emission Limits**

On and after the date of startup of **S2.008** Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.008** the following pollutants in excess of the following specified limits:

- a. NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **74.74** pounds per hour.
- b. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **1.28** pounds per hour.
- c. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **1.28** pounds per hour.
- d. NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **S2.008** will not equal or exceed **20%** in accordance with NAC 445B.22017.
- e. 40 CFR Part 60.252(c) <u>Enforceable New Source Performance Standard Requirement</u> The opacity from **S2.008** will not equal or exceed **20**%.

### BUREAU OF AIR POLLUTION CONTROL

# Facility ID No. A0375 Permit No. AP4911-0457.01

# PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions (continued)**

### H. Emission Unit #S2.008 (continued)

- NAC 445B.3405 (NAC 445B.316) Part 70 Program 3. **Operating Parameters** 
  - Maximum allowable throughput rate for **S2.008** will not exceed **800.0** tons of coal per any one-hour period.

**S2.008** may operate **8,760** hours per calendar year.

- 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program
  - Monitoring, Record keeping and Compliance
  - 40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the date of initial startup, Permittee will:

- Install, calibrate, operate and maintain devices for the measurement of the internal pressure of the baghouse controlling emissions from S2.008.
- (2) Conduct and record a reading of the baghouse internal pressure controlling emissions from **S2.008** on a monthly basis. Record any monitored excursions from the indicator range and record any corrective actions taken.
- The indicator range for the baghouse internal pressure shall be between 1.0 to 6.0 inches of water for the baghouse controlling emissions from \$2.008. Excursions shall be defined as anytime the baghouse internal pressure, falls outside this indicator range.
- Conduct and record a baghouse inspection on an annual basis.
- The required monitoring established in a.(1) through (4) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each month, or part of the month that \$2.008 is operating:
  - Results of the reading of the internal pressure of the baghouse controlling emissions from S2.008. (i)
  - (ii) Results and verification of the annual baghouse inspection and documentation of the inspection date of the baghouse controlling emissions from **S2.008**, and any corrective actions taken.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

# Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

**Issued to:** Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions** (continued)

### H. Emission Unit #S2.008 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) *Part 70 Program* Monitoring, Record keeping and Compliance
  - b. Permittee will:
    - (1) On a monthly basis, record the throughput (tons) of coal handled by **S2.008**.
    - (2) On a monthly basis, record the hours of operation, for **S2.008**.
    - (3) Conduct and record a Method 5 or 17 and a Method 201A (or an equivalent method as approved in advance by the Director) performance test for PM and PM<sub>10</sub> on the exhaust stack of **S2.008** consisting of three valid runs within 180 days from the date of issuance of this operating permit and 90 days prior to the expiration of this operating permit. The sampling time and sample volume for each run shall be at least 120 minutes and 1.70 dscm (60 dscf). The Method 201A performance test must be conducted in accordance with 40 CFR Part 51, Appendix M, Method 201A. The Method 5 or 17 performance test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 5 or 17.
    - (4) The Method 201A performance test may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 test performed under this provision shall be considered PM<sub>10</sub> emissions for compliance demonstration purposes.
    - (5) As a means of showing compliance with the opacity limit prescribed in H.2 of this section, within 180 days from the date of issuance of this operating permit and 90 days prior to the expiration of this operating permit, conduct and record a Method 9 determination using the procedures in 40 CFR 60.11 to determine the opacity from the stack discharge of **S2.008**.
    - (6) On an annual basis, perform an inspection of the **S2.008** baghouse including a visual inspection of the bags and all connecting points. Annual baghouse inspection records must show that observations were made and include records of any corrective actions taken.
    - (7) On a quarterly basis for **S2.008**, perform and record visible emissions inspection of the opacity of the discharges from the exhaust stack of **S2.008**. If any visible emissions are documented, provide immediate corrective action in the affected control device. Visible emissions inspection records must show that observations were made and include records of any corrective actions taken. A method 9 visible emissions test shall be conducted upon completion of corrective actions.
    - (8) Monitor and record that the water/surfactant sprays located along the uncovered points of the 3,500 feet of covered coal handling conveyors are maintained in accordance with the standard facilities operation and maintenance guidelines, on a monthly basis. Perform immediate corrective action for all inoperative sprays found. Inspection records must show that observations were made and include records of any corrective actions taken.
- 5. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> <u>Shielded Requirements</u>

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

# Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions** (continued)

Emission Unit #S2.009 and S2.010 location North 4525.39 km, East 487.28 km, UTM (Zone 11)

### I. System 03G - Coal Handling System G

- S 2.009 #1 Unit Coal Silos A & B (2 silos) and associated conveyors, each 56'10" (H) x 22' (W)
- S 2.010 #1 Unit Coal Silos C & D (2 silos) and associated conveyors, each 56'10" (H) x 22' (W)
  - 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

- a. Emissions from **S2.009** and **S2.010**, each, shall be controlled by a control system consisting of a baghouse to control particulate matter emissions.
- b. Stack Parameters:

Manufacture: MicroPul
Stack Height: 183.0 ft
Stack Diameter: 1.3 ft
Nominal Exhaust Temperature: Ambient
Nominal Volumetric Flowrate: 6,000.0 acfm

- c. Part G of the control system for the 3,500 feet of covered coal handling conveyors consisting of maintaining the covered coal handling conveyors under negative pressure so that the emissions are captured and exhausted through the dust collectors associated with **S2.003 through S2.012**. Water and/or surfactant application will be added as needed at the following uncovered points along the 3,500 feet of covered coal handling conveyors to minimize fugitive particulate emissions from the open coal storage piles: rail trestle unloading area, rotary plow feeder discharge chute at the coal unloading hoppers, discharge point from the conveyor carrying coal from the rotary plow feeder discharge chute, and discharge from the reclaim hoppers by the two vibratory feeders.
- 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

On and after the date of startup of **S2.009 and S2.010**, each, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.009 and S2.010**, each, the following pollutants in excess of the following specified limits:

- a. NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **74.74** pounds per hour, each.
- b. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.87** pound per hour, each.
- c. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **0.87** pound per hour, each.
- d. NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **S2.009 and S2.010**, each, will not equal or exceed **20%** in accordance with NAC 445B.22017.
- e. 40 CFR Part 60.252(c) <u>Enforceable New Source Performance Standard Requirement</u> The opacity from **S2.009 and S2.010**, each, will not equal or exceed **20**%.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

# Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions** (continued)

- I. Emission Unit #S2.009 and S2.010 (continued)
  - 3. NAC 445B.3405 (NAC 445B.316) *Part 70 Program* Operating Parameters
    - a. Maximum allowable throughput rate for **S2.009 and S2.010**, each, will not exceed **800.0** tons of coal per any one-hour period.
    - b. Hours

S2.009 and S2.010 may operate 8,760 hours per calendar year.

4. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

Monitoring, Record keeping and Compliance

a. 40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the date of initial startup, Permittee will:

- Install, calibrate, operate and maintain devices for the measurement of the internal pressure of the baghouses controlling emissions from S2.009 and S2.010, each.
- (2) Conduct and record a reading of the baghouse internal pressure controlling emissions from **S2.009** and **S2.010**, each on a monthly basis. Record any monitored excursions from the indicator range and record any corrective actions taken.
- (3) The indicator range for the baghouse internal pressure shall be between **1.0 to 6.0** inches of water for the baghouse controlling emissions from **S2.009 and S2.010**, each. Excursions shall be defined as anytime the baghouse internal pressure falls outside this indicator range.
- (4) Conduct and record a baghouse inspection on an annual basis.
- (5) The required monitoring established in a.(1) through (4) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each month, or part of the month that **S2.009** and **S2.010**, each, is operating:
  - (i) Results of the reading of the internal pressure of the baghouse controlling emissions from **S2.009** and **S2.010**, each.
  - (ii) Results and verification of the annual baghouse inspection and documentation of the inspection date of the baghouse controlling emissions from **S2.009** and **S2.010**, each, and any corrective actions taken.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375 Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions (continued)**

- Emission Unit #S2.009 and S2.010 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program Monitoring, Record keeping and Compliance
    - Permittee will:
      - On a monthly basis, record the throughput (tons) of coal handled by **S2.009 and S2.010**, each. (1)
      - On a monthly basis, record the hours of operation, for **S2.009** and **S2.010**, each.
      - Conduct and record a Method 5 or 17 and a Method 201A (or an equivalent method as approved in advance by the Director) performance test for PM and PM<sub>10</sub> on the exhaust stack of **S2.009 and S2.010**, each, consisting of three valid runs within 180 days from the date of issuance of this operating permit and 90 days prior to the expiration of this operating permit. The sampling time and sample volume for each run shall be at least 120 minutes and 1.70 dscm (60 dscf). The Method 201A performance test must be conducted in accordance with 40 CFR Part 51, Appendix M, Method 201A. The Method 5 or 17 performance test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 5 or 17.
      - The Method 201A performance test may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 test performed under this provision shall be considered PM<sub>10</sub> emissions for compliance demonstration purposes.
      - (5) As a means of showing compliance with the opacity limit prescribed in I.2 of this section, within 180 days from the date of issuance of this operating permit and 90 days prior to the expiration of this operating permit, conduct and record a Method 9 determination using the procedures in 40 CFR 60.11 to determine the opacity from the stack discharge of S2.009 and S2.010, each.
      - On an annual basis, perform an inspection of the S2.009 and S2.010 baghouses, each, including a visual inspection of the bags and all connecting points. Annual baghouse inspection records must show that observations were made and include records of any corrective actions taken.
      - (7) On a quarterly basis for **S2.009 and S2.010**, each, perform and record visible emissions inspection of the opacity of the discharges from the exhaust stack of S2.009 and S2.010, each. If any visible emissions are documented, provide immediate corrective action in the affected control device. Visible emissions inspection records must show that observations were made and include records of any corrective actions taken. A method 9 visible emissions test shall be conducted upon completion of corrective actions.
      - Monitor and record that the water/surfactant sprays located along the uncovered points of the 3,500 feet of covered coal handling conveyors are maintained in accordance with the standard facilities operation and maintenance guidelines, on a monthly basis. Perform immediate corrective action for all inoperative sprays found. Inspection records must show that observations were made and include records of any corrective actions taken.
  - 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program **Shielded Requirements**

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

# Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions** (continued)

J. Emission Unit #S2.011 and S2.012 location North 4525.39 km, East 487.28 km, UTM (Zone 11)

#### J. System 03H – Coal Handling System H

- S 2.011 #2 Unit Coal Silos A & B (2 silos) and associated conveyors, each 40'5" (H) x 27' (W)
- S 2.012 #2 Unit Coal Silos C & D (2 silos) and associated conveyors, each 40'5" (H) x 27' (W)
  - 1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

#### Air Pollution Equipment

- a. Emissions from **S2.011** and **S2.012**, each, shall be controlled by a control system consisting of a baghouse to control particulate matter emissions.
- b. Stack Parameters:

Manufacture: MicroPul
Stack Height: 149.0 ft
Stack Diameter: 1.4 ft
Nominal Exhaust Temperature: Ambient
Nominal Volumetric Flowrate: 6,880.0 acfm

- c. Part H of the control system for the 3,500 feet of covered coal handling conveyors consisting of maintaining the covered coal handling conveyors under negative pressure so that the emissions are captured and exhausted through the dust collectors associated with **S2.003 through S2.012**. Water and/or surfactant application will be added as needed at the following uncovered points along the 3,500 feet of covered coal handling conveyors to minimize fugitive particulate emissions from the open coal storage piles: rail trestle unloading area, rotary plow feeder discharge chute at the coal unloading hoppers, discharge point from the conveyor carrying coal from the rotary plow feeder discharge chute, and discharge from the reclaim hoppers by the two vibratory feeders.
- 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

On and after the date of startup of **S2.011 and S2.012**, each, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.011 and S2.012**, each, the following pollutants in excess of the following specified limits:

- a. NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **74.74** pounds per hour, each.
- b. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **1.00** pound per hour, each.
- c. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **1.00** pound per hour, each.
- d. NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **S2.011 and S2.012**, each, will not equal or exceed **20%** in accordance with NAC 445B.22017.
- e. 40 CFR Part 60.252(c) <u>Enforceable New Source Performance Standard Requirement</u> The opacity from **S2.011 and S2.012**, each, will not equal or exceed **20**%.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

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### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions** (continued)

- J. Emission Unit #S2.011and S2.012 (continued)
  - 3. NAC 445B.3405 (NAC 445B.316) *Part 70 Program* Operating Parameters
    - a. Maximum allowable throughput rate for **S2.011 and S2.012**, each, will not exceed **800.0** tons of coal per any one-hour period.
    - b. Hours

S2.011 may operate 8,760 hours per calendar year.

4. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

Monitoring, Record keeping and Compliance

a. 40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the date of initial startup, Permittee will:

- Install, calibrate, operate and maintain devices for the measurement of the internal pressure of the baghouses controlling emissions from S2.011 and S2.012, each.
- (2) Conduct and record a reading of the baghouse internal pressure controlling emissions from S2.011 and S2.012, each on a monthly basis. Record any monitored excursions from the indicator range and record any corrective actions taken.
- (3) The indicator range for the baghouse internal pressure shall be between **1.0 to 6.0** inches of water for the baghouse controlling emissions from **S2.011** and **S2.012**, each. Excursions shall be defined as anytime the baghouse internal pressure falls outside this indicator range.
- (4) Conduct and record a baghouse inspection on an annual basis.
- (5) The required monitoring established in a.(1) through (4) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each month, or part of the month that **S2.011** and **S2.012**, each, is operating:
  - (i) Results of the reading of the internal pressure of the baghouse controlling emissions from **S2.011** and **S2.012**, each.
  - (ii) Results and verification of the annual baghouse inspection and documentation of the inspection date of the baghouse controlling emissions from **S2.011** and **S2.012**, each, and any corrective actions taken.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375 Permit No. AP4911-0457.01

# PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions (continued)**

- Emission Unit #S2.011and S2.012 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program Monitoring, Record keeping and Compliance
    - Permittee will:
      - On a monthly basis, record the throughput (tons) of coal handled, individually, by **S2.011 and S2.012**. (1)
      - On a monthly basis, record the hours of operation, individually, for S2.011 and S2.012.
      - Conduct and record a Method 5 or 17 and a Method 201A (or an equivalent method as approved in advance by the Director) performance test for PM and PM<sub>10</sub> on the exhaust stack of **S2.011** and **S2.012**, each, consisting of three valid runs within 180 days from the date of issuance of this operating permit and 90 days prior to the expiration of this operating permit. The sampling time and sample volume for each run shall be at least 120 minutes and 1.70 dscm (60 dscf). The Method 201A performance test must be conducted in accordance with 40 CFR Part 51, Appendix M, Method 201A. The Method 5 or 17 performance test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 5 or 17.
      - The Method 201A performance test may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 test performed under this provision shall be considered PM<sub>10</sub> emissions for compliance demonstration purposes.
      - (5) As a means of showing compliance with the opacity limit prescribed in J.2 of this section, within 180 days from the date of issuance of this operating permit and 90 days prior to the expiration of this operating permit, conduct and record a Method 9 determination using the procedures in 40 CFR 60.11 to determine the opacity from the stack discharge of S2.011 and S2.012, each.
      - On an annual basis, perform an inspection of the S2.011 and S2.012 baghouse, each, including a visual inspection of the bags and all connecting points. Annual baghouse inspection records must show that observations were made and include records of any corrective actions taken.
      - (7) On a quarterly basis for **S2.011 and S2.012**, each, perform and record visible emissions inspection of the opacity of the discharges from the exhaust stack of S2.011 and S2.012, each. If any visible emissions are documented, provide immediate corrective action in the affected control device. Visible emissions inspection records must show that observations were made and include records of any corrective actions taken. A method 9 visible emissions test shall be conducted upon completion of corrective actions.
      - Monitor and record that the water/surfactant sprays located along the uncovered points of the 3,500 feet of covered coal handling conveyors are maintained in accordance with the standard facilities operation and maintenance guidelines, on a monthly basis. Perform immediate corrective action for all inoperative sprays found. Inspection records must show that observations were made and include records of any corrective actions taken.
  - 5. NAC 445B.3405 (NAC 445B.316) Part 70 Program **Shielded Requirements**

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

# Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

**Issued to:** Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions**

K. Emission Units S2.013 and PF1.001 Location North 4,525.46 km, East 487.44 km, UTM (Zone 11)

### K. System 04A - Circulating Water Treatment System A (Soda Ash Storage 20' (H) x 12' (W))

S 2.013 Unit #1 Soda Ash Storage Bin Loading

PF 1.001 Unit #1 Soda Ash Storage Bin Unloading

### 1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

Air Pollution Equipment

a. Emissions from **S2.013** shall be controlled by a control system consisting of a bin vent filter to control particulate matter emissions while loading the storage bin.

Stack Parameters:

Manufacturer: Evo
Stack Height: 69.0 ft
Stack Diameter: 0.7 ft
Nominal Exhaust Temperature: Ambient
Nominal Volumetric Flowrate: 960 acfm

- b. Emissions from **PF1.001** will be controlled by unloading inside of an enclosed building into a wet process with no source emissions to the atmosphere.
- 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- a. On and after the date of startup of **S2.013**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.013** the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **44.58** pounds per hour.
  - (2) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of  $PM_{10}$  (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.14** pound per hour.
  - (3) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **0.14** pound per hour.
  - (4) NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **S2.013** will not equal or exceed **20**% in accordance with NAC 445B.22017.
- b. On and after the date of startup of **PF1.001**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.001**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **44.58** pounds per hour.
  - (2) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.0** pound per hour.
  - (3) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **0.0** pound per hour.
  - (4) NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **PF1.001** will not equal or exceed **20**% in accordance with NAC 445B.22017.
  - (5) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The opacity from **PF1.001** will not equal or exceed **0**%.

### BUREAU OF AIR POLLUTION CONTROL

# Facility ID No. A0375 Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions**

### K. Emission Units S2.013 and PF1.001 (continued)

NAC 445B.3405 (NAC 445B.316) Part 70 Program 3.

#### **Operating Parameters**

- Maximum allowable loading rate of soda ash to \$2.013 will not exceed 50 tons per hour, averaged on a monthly basis.
- b. Hours

**S2.013 and PF1.001** may operate **8.760** hours per calendar year.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Monitoring, Record keeping and Compliance

40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the date of initial startup, Permittee will:

- (1) Conduct a visual survey of the exhaust stack from the bin vent filter during loading. Record any monitored excursions from the indicator range and record any corrective actions taken.
- The indicator range for the bin vent filter shall be between 0 to 20 percent opacity for the bin vent filter controlling emissions from S2.013. Excursions shall be defined as anytime the bin vent filter opacity falls outside this indicator range.
- Conduct and record a bin vent filter inspection on an annual basis.
- The required monitoring established in a.(1) through (4) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each month, or part of the month that \$2.013 is operating:
  - Results of the visual survey from the bin vent filter exhaust stack during loading of S2.013.
  - Results and verification of the annual bin vent filter inspection and documentation of the inspection date of the bin vent filter controlling emissions from **S2.013**, and any corrective actions taken.

#### Permittee will: b.

- (1) On a monthly basis, record the amount of soda ash loaded into S2.013 each day loading occurs and the duration of the loading.
- On a monthly basis, record the hours of operation of **S2.013**. (2)
- On an annual basis, perform an inspection of the S2.013 bin vent filter, including a visual inspection of the bags and all connecting points. Annual bin vent filter inspection records must show that observations were made and include records of any corrective actions taken.
- During loading for S2.013, perform and record a visual survey of the opacity of the discharges from the exhaust point of **S2.013**. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
- On a quarterly basis for PF1.001 perform and record visible survey of the opacity of the discharges from the exhaust point of **PF1.001**. If these visible surveys document any opacity greater than 0%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.
- 5. NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program **Shielded Requirements**

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

# Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

**Issued to:** Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions**

L. Emission Units S2.014 and PF1.002 Location North 4,525.46 km, East 487.44 km, UTM (Zone 11)

L. System 04B - Circulating Water Treatment System A (Magnesium Oxide Storage Bin, 20' (H) x 12' (W))

S 2.014 Unit #1 Magnesium Oxide Storage Bin Loading

PF 1.002 Unit #1 Magnesium Oxide Storage Bin Unloading

1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Air Pollution Equipment

a. Emissions from **S2.014** shall be controlled by a control system consisting of a bin vent filter to control particulate matter emissions while loading the storage bin.

Stack Parameters:

Manufacturer: Evo
Stack Height: 69.0 ft
Stack Diameter: 0.7 ft
Nominal Exhaust Temperature: Ambient
Nominal Volumetric Flowrate: 960 acfm

- b. Emissions from **PF1.002** will be controlled by unloading inside of an enclosed building into a wet process with no source emissions to the atmosphere.
- 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- a. On and after the date of startup of **S2.014**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.014** the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **44.58** pounds per hour.
  - (2) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of  $PM_{10}$  (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.14** pound per hour.
  - (3) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **0.14** pound per hour.
  - (4) NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **S2.014** will not equal or exceed **20**% in accordance with NAC 445B.22017.
- b. On and after the date of startup of **PF1.002**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.002**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **44.58** pounds per hour.
  - (2) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.0** pound per hour.
  - (3) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **0.0** pound per hour.
  - (4) NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **PF1.002** will not equal or exceed **20**% in accordance with NAC 445B.22017.
  - (5) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The opacity from **PF1.002** will not equal or exceed **0**%.

### BUREAU OF AIR POLLUTION CONTROL

# Facility ID No. A0375 Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions**

- Emission Units S2.014 and PF1.002 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part 70 Program 3. **Operating Parameters** 
    - Maximum allowable loading rate of magnesium oxide to S2.014 will not exceed 50 tons per hour, averaged on a monthly basis.
    - b.
      - S2.014 and PF1.002 may operate 8,760 hours per calendar year.
  - 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Monitoring, Record keeping and Compliance

40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the date of initial startup, Permittee will:

- (1) Conduct a visual survey of the exhaust stack from the bin vent filter during loading. Record any monitored excursions from the indicator range and record any corrective actions taken.
- The indicator range for the bin vent filter shall be between 0 to 20 percent opacity for the bin vent filter controlling emissions from **S2.014**. Excursions shall be defined as anytime the bin vent filter opacity falls outside this indicator range.
- Conduct and record a bin vent filter inspection on an annual basis.
- The required monitoring established in a.(1) through (4) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each month, or part of the month that \$2.014 is operating:
  - (i) Results of the visual survey from the bin vent filter exhaust stack during loading of S2.014.
  - (ii) Results and verification of the annual bin vent filter inspection and documentation of the inspection date of the bin vent filter controlling emissions from S2.014, and any corrective actions taken.
- Permittee will: b.
  - (1) On a monthly basis, record the amount of soda ash loaded into **S2.014** each day loading occurs and the duration of the loading.
  - On a monthly basis, record the hours of operation of **S2.014**.
  - (3) On an annual basis, perform an inspection of the S2.014 bin vent filter, including a visual inspection of the bags and all connecting points. Annual baghouse inspection records must show that observations were made and include records of any corrective actions taken.
  - During loading for S2.014, perform and record a visual survey of the opacity of the discharges from the exhaust point of S2.014. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
  - (5) On a quarterly basis for **PF1.002** perform and record visible survey of the opacity of the discharges from the exhaust point of **PF1.002**. If these visible surveys document any opacity greater than 0%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.
- 5. NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program **Shielded Requirements**

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

# Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

**Issued to:** Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions**

M. Emission Units S2.015 and PF1.003 Location North 4,525.46 km, East 487.44 km, UTM (Zone 11)

#### M. System 05A - Circulating Water Treatment System B (Soda Ash Storage Bin, 26' (H) x 12' (W))

S 2.015 Unit #2 Soda Ash Storage Bin Loading

PF 1.003 Unit #2 Soda Ash Storage Bin Unloading

### 1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

#### Air Pollution Equipment

a. Emissions from **S2.015** shall be controlled by a control system consisting of a bin vent filter to control particulate matter emissions while loading the storage bin.

#### Stack Parameters:

Manufacturer: Evo
Stack Height: 84.0 ft
Stack Diameter: 1.0 ft
Nominal Exhaust Temperature: Ambient
Nominal Volumetric Flowrate: 960 acfm

- b. Emissions from **PF1.003** will be controlled by unloading inside of an enclosed building into a wet process with no source emissions to the atmosphere.
- 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- a. On and after the date of startup of **S2.015**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.015** the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **44.58** pounds per hour.
  - (2) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of  $PM_{10}$  (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.14** pound per hour.
  - (3) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **0.14** pound per hour.
  - (4) NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **S2.015** will not equal or exceed **20**% in accordance with NAC 445B.22017.
- b. On and after the date of startup of **PF1.003**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.003**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **44.58** pounds per hour.
  - (2) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.0** pound per hour.
  - (3) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **0.0** pound per hour.
  - (4) NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **PF1.003** will not equal or exceed **20**% in accordance with NAC 445B.22017.
  - (5) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The opacity from **PF1.003** will not equal or exceed **0**%.

### BUREAU OF AIR POLLUTION CONTROL

# Facility ID No. A0375 Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions**

### M. Emission Units S2.015 and PF1.003 (continued)

- NAC 445B.3405 (NAC 445B.316) Part 70 Program 3. **Operating Parameters** 
  - Maximum allowable loading rate of soda ash to S2.015 will not exceed 50 tons per hour, averaged on a monthly basis.
  - b. Hours

S2.015 and PF1.003 may operate 8,760 hours per calendar year.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Monitoring, Record keeping and Compliance

40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the date of initial startup, Permittee will:

- (1) Conduct a visual survey of the exhaust stack from the bin vent filter during loading. Record any monitored excursions from the indicator range and record any corrective actions taken.
- The indicator range for the bin vent filter shall be between 0 to 20 percent opacity for the bin vent filter controlling emissions from S2.015. Excursions shall be defined as anytime the bin vent filter opacity falls outside this indicator range.
- Conduct and record a bin vent filter inspection on an annual basis.
- The required monitoring established in a.(1) through (4) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each month, or part of the month that \$2.015 is operating:
  - (i) Results of the visual survey from the bin vent filter exhaust stack during loading of **S2.015**.
  - (ii) Results and verification of the annual bin vent filter inspection and documentation of the inspection date of the bin vent filter controlling emissions from S2.015, and any corrective actions taken.
- Permittee will: b.
  - (1) On a monthly basis, record the amount of soda ash loaded into S2.015 each day loading occurs and the duration of the loading.
  - On a monthly basis, record the hours of operation of **S2.015**.
  - (3) On an annual basis, perform an inspection of the **S2.015** bin vent filter, including a visual inspection of the bags and all connecting points. Annual baghouse inspection records must show that observations were made and include records of any corrective actions taken.
  - During loading for S2.015, perform and record a visual survey of the opacity of the discharges from the exhaust point of S2.015. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
  - (5) On a quarterly basis for **PF1.003** perform and record visible survey of the opacity of the discharges from the exhaust point of **PF1.003**. If these visible surveys document any opacity greater than 0%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.
- 5. NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program **Shielded Requirements**

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

# Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

**Issued to:** Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions**

N. Emission Units S2.016 and PF1.004 Location North 4,525.46 km, East 487.44 km, UTM (Zone 11)

N. System 05B - Circulating Water Treatment System B (Magnesium Oxide Storage Bin, 26' (H) x 12' (W))

S 2.016 Unit #2 Magnesium Oxide Storage Bin Loading

PF 1.004 Unit #2 Magnesium Oxide Storage Bin Unloading

- 1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Air Pollution Equipment
  - a. Emissions from **S2.016** shall be controlled by a control system consisting of a bin vent filter dust collector to control particulate matter emissions while loading the storage bin.

**Stack Parameters:** 

Manufacturer: Evo
Stack Height: 84 ft
Stack Diameter: 1.0 ft
Nominal Exhaust Temperature: Ambient
Nominal Volumetric Flowrate: 960 acfm

- b. Emissions from **PF1.004** will be controlled by unloading inside of an enclosed building into a wet process with no source emissions to the atmosphere.
- 2. NAC 445B.3405 (NAC 445B.316) *Part 70 Program*

- a. On and after the date of startup of **S2.016**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.016** the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **44.58** pounds per hour.
  - (2) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of  $PM_{10}$  (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.14** pound per hour.
  - (3) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **0.14** pound per hour.
  - (4) NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **S2.016** will not equal or exceed **20**% in accordance with NAC 445B.22017.
- b. On and after the date of startup of **PF1.004**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.004**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **44.58** pounds per hour.
  - (2) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.0** pound per hour.
  - (3) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **0.0** pound per hour.
  - (4) NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **PF1.004** will not equal or exceed **20**% in accordance with NAC 445B.22017.
  - (5) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The opacity from **PF1.004** will not equal or exceed **0**%.

### BUREAU OF AIR POLLUTION CONTROL

# Facility ID No. A0375 Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions**

- N. Emission Units S2.016 and PF1.004 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part 70 Program 3. **Operating Parameters** 
    - Maximum allowable loading rate of magnesium oxide to \$2.016 will not exceed 50 tons per hour, averaged on a monthly basis.
    - b.
      - **S2.016 and PF1.004** may operate **8,760** hours per calendar year.
  - 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Monitoring, Record keeping and Compliance

40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the date of initial startup, Permittee will:

- (1) Conduct a visual survey of the exhaust stack from the bin vent filter during loading. Record any monitored excursions from the indicator range and record any corrective actions taken.
- The indicator range for the bin vent filter shall be between 0 to 20 percent opacity for the bin vent filter controlling emissions from **S2.016**. Excursions shall be defined as anytime the bin vent filter opacity falls outside this indicator range.
- Conduct and record a bin vent filter inspection on an annual basis.
- The required monitoring established in a.(1) through (4) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each month, or part of the month that \$2.016 is operating:
  - (i) Results of the visual survey from the bin vent filter exhaust stack during loading of **S2.016**.
  - (ii) Results and verification of the annual bin vent filter inspection and documentation of the inspection date of the bin vent filter controlling emissions from **S2.016**, and any corrective actions taken.
- Permittee will: b.
  - (1) On a monthly basis, record the amount of soda ash loaded into **S2.016** each day loading occurs and the duration of the loading.
  - On a monthly basis, record the hours of operation of **S2.016**.
  - (3) On an annual basis, perform an inspection of the **S2.016** bin vent filter, including a visual inspection of the bags and all connecting points. Annual baghouse inspection records must show that observations were made and include records of any corrective actions taken.
  - During loading for S2.016, perform and record a visual survey of the opacity of the discharges from the exhaust point of **S2.016**. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
  - (5) On a quarterly basis for **PF1.004** perform and record visible survey of the opacity of the discharges from the exhaust point of **PF1.004**. If these visible surveys document any opacity greater than 0%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.
- 5. NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program **Shielded Requirements**

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

# Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions** (continued)

O. Emission Units S2.017 and PF1.005 Location North 4,525.67 km, East 487.14 km, UTM (Zone 11)

O. System 06 - Fly Ash Handling System (Unit #1 Fly Ash Silo, 64' (H) x 35' (W))

S 2.017 Unit #1 Fly Ash Silo Loading

PF 1.005 Unit #1 Fly Ash Silo Unloading

1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

Air Pollution Equipment

a. Emissions from **S2.017** shall be controlled by a control system consisting of a dust collector to control particulate matter emissions.

Stack Parameters:

Manufacturer: Evo
Stack Height: 100 ft
Stack Diameter: 1.4 ft
Nominal Exhaust Temperature: Ambient
Nominal Volumetric Flowrate: 2,640 acfm

- b. Emissions from **PF1.005** will be controlled inside an enclosed building by utilizing water sprays inside a rotary unloader during unloading into a haul truck.
- 2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

- a. On and after the date of startup of **S2.017**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.017** the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **26.28** pounds per hour.
  - (2) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.38** pound per hour.
  - (3) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **0.38** pound per hour.
  - (4) NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **S2.017** will not equal or exceed **20**% in accordance with NAC 445B.22017.
- b. On and after the date of startup of **PF1.005**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.005**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **62.22** pounds per hour.
  - (2) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.022** pound per hour.
  - (3) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **0.022** pound per hour.
  - (4) NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **PF1.005** will not equal or exceed **20**% in accordance with NAC 445B.22017.

### BUREAU OF AIR POLLUTION CONTROL

# Facility ID No. A0375 Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions**

### O. Emission Units S2.017 and PF1.005 (continued)

NAC 445B.3405 (NAC 445B.316) Part 70 Program 3.

#### **Operating Parameters**

- Maximum allowable loading rate of fly ash to \$2.017 will not exceed 16.0 tons per hour, averaged on a monthly
- Maximum allowable unloading rate of fly ash from PF1.005 will not exceed 280.0 tons per hour, averaged on a b. monthly basis.
- c. Hours

**S2.017 and PF1.005** may operate **8,760** hours per calendar year.

#### 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

### Monitoring, Record keeping and Compliance

40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the date of initial startup, Permittee will:

- (1) Install, calibrate, operate and maintain devices for the measurement of the internal pressure of the baghouse controlling emissions from **S2.017**.
- Conduct and record a reading of the baghouse internal pressure controlling emissions from \$2.017 on a monthly basis. Record any monitored excursions from the indicator range and record any corrective actions taken.
- The indicator range for the baghouse internal pressure shall be between 1.0 to 6.0 inches of water for the baghouse controlling emissions from \$2.017. Excursions shall be defined as anytime the baghouse internal pressure falls outside this indicator range.
- Conduct and record a baghouse inspection on an annual basis.
- The required monitoring established in a.(1) through (4) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each month, or part of the month that \$2.017 is
  - Results of the reading of the internal pressure of the baghouse controlling emissions from S2.017. (i)
  - Results and verification of the annual baghouse inspection and documentation of the inspection date of the baghouse controlling emissions from **S2.017**, and any corrective actions taken.

#### Permittee will: b.

- On a monthly basis, record the amount of fly ash loaded into S2.017 each day loading occurs and the duration of the loading.
- On a monthly basis, record the amount of fly ash unloaded from PF1.005 each day loading occurs and the duration of the loading.
- On a monthly basis, record the hours of operation of **S2.017 and PF1.005**.
- (4) On an annual basis, perform an inspection of the S2.017 baghouse, including a visual inspection of the bags and all connecting points. Annual baghouse inspection records must show that observations were made and include records of any corrective actions taken.
- (5) On a quarterly basis for **S2.017**, perform and record a visual survey of the opacity of the discharges from the exhaust point of S2.017. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
- (6) On a quarterly basis for **PF1.005** perform and record visible survey of the opacity of the discharges from the exhaust point of PF1.005. If these visible surveys document any opacity greater than 20%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.
- 5. NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program **Shielded Requirements**

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

# Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions** (continued)

P. Emission Units S2.018 and PF1.006 Location North 4,525.67 km, East 487.14 km, UTM (Zone 11)

P. System 07 - Fly Ash Handling System (Unit #2 Fly Ash Silo, 64' (H) x 35' (W))

S 2.018 Unit #2 Fly Ash Silo Loading

PF 1.006 Unit #2 Fly Ash Silo Unloading

1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

Air Pollution Equipment

 Emissions from S2.018 shall be controlled by a control system consisting of a dust collector to control particulate matter emissions.

Stack Parameters:

Manufacturer: Evo
Stack Height: 100 ft
Stack Diameter: 1.4 ft
Nominal Exhaust Temperature: Ambient
Nominal Volumetric Flowrate: 2,640 acfm

- b. Emissions from **PF1.006** will be controlled inside an enclosed building by utilizing water sprays inside a rotary unloader during unloading into a haul truck.
- 2. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

- a. On and after the date of startup of **S2.018**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.018** the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **27.79** pounds per hour.
  - (2) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.38** pound per hour.
  - (3) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **0.38** pound per hour.
  - (4) NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **S2.018** will not equal or exceed **20**% in accordance with NAC 445B.22017.
- b. On and after the date of startup of **PF1.006**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.006**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **62.22** pounds per hour.
  - (2) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.022** pound per hour.
  - (3) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **0.022** pound per hour.
  - (4) NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **PF1.006** will not equal or exceed **20**% in accordance with NAC 445B.22017.

### BUREAU OF AIR POLLUTION CONTROL

# Facility ID No. A0375 Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions**

### P. Emission Units S2.018 and PF1.006 (continued)

NAC 445B.3405 (NAC 445B.316) Part 70 Program 3.

#### **Operating Parameters**

- Maximum allowable loading rate of fly ash to \$2.018 will not exceed 17.4 tons per hour, averaged on a monthly
- Maximum allowable unloading rate of fly ash from PF1.005 will not exceed 280.0 tons per hour, averaged on a b. monthly basis.
- c. Hours

**S2.018 and PF1.006** may operate **8,760** hours per calendar year.

#### 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

### Monitoring, Record keeping and Compliance

40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the date of initial startup, Permittee will:

- (1) Install, calibrate, operate and maintain devices for the measurement of the internal pressure of the baghouse controlling emissions from S2.018.
- Conduct and record a reading of the baghouse internal pressure controlling emissions from **S2.018** on a monthly basis. Record any monitored excursions from the indicator range and record any corrective actions taken.
- The indicator range for the baghouse internal pressure shall be between 1.0 to 6.0 inches of water for the baghouse controlling emissions from \$2.018. Excursions shall be defined as anytime the baghouse internal pressure falls outside this indicator range.
- Conduct and record a baghouse inspection on an annual basis.
- The required monitoring established in a.(1) through (4) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each month, or part of the month that \$2.018 is
  - Results of the reading of the internal pressure of the baghouse controlling emissions from S2.018. (i)
  - Results and verification of the annual baghouse inspection and documentation of the inspection date of the baghouse controlling emissions from **S2.018**, and any corrective actions taken.

#### Permittee will: b.

- On a monthly basis, record the amount of fly ash loaded into S2.018 each day loading occurs and the duration of the loading.
- On a monthly basis, record the amount of fly ash unloaded from PF1.006 each day loading occurs and the duration of the loading.
- On a monthly basis, record the hours of operation of **S2.018 and PF1.006**.
- (4) On an annual basis, perform an inspection of the S2.018 baghouse, including a visual inspection of the bags and all connecting points. Annual baghouse inspection records must show that observations were made and include records of any corrective actions taken.
- (5) On a quarterly basis for **S2.018**, perform and record a visual survey of the opacity of the discharges from the exhaust point of S2.018. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
- (6) On a quarterly basis for **PF1.006** perform and record visible survey of the opacity of the discharges from the exhaust point of **PF1.006**. If these visible surveys document any opacity greater than 0%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.
- 5. NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program **Shielded Requirements**

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

# Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

**Issued to:** Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions** (continued)

**Q. Emission Units S2.019 and PF1.007** Location North 4,525.61 km, East 487.08 km, UTM (Zone 11)

Q. System 08A - Unit #2 Lime Scrubber System A (Scrubber - Loop 1 Lime Day Storage Bin, 35 ton capacity)

S 2.019 Loop 1 Lime Day Storage Bin Loading

PF 1.007 Loop 1 Lime Day Storage Bin Unloading

1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

Air Pollution Equipment

a. Emissions from **S2.019** shall be controlled by a control system consisting of a dust collector to control particulate matter emissions.

Stack Parameters:

Manufacturer: Evo
Stack Height: 75 ft
Stack Diameter: 1.4 ft
Nominal Exhaust Temperature: Ambient
Nominal Volumetric Flowrate: 2,800 acfm

- b. Emissions from **PF1.007** will be controlled by unloading inside of an enclosed building into a wet process with no source emissions to the atmosphere.
- 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- a. On and after the date of startup of **S2.019**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.019** the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **41.32** pounds per hour.
  - (2) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of  $PM_{10}$  (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.41** pound per hour.
  - (3) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **0.41** pound per hour.
  - (4) NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **S2.019** will not equal or exceed **20**% in accordance with NAC 445B.22017.
- b. On and after the date of startup of **PF1.007**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.007**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **41.32** pounds per hour.
  - (2) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.0** pound per hour.
  - (3) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **0.0** pound per hour.
  - (4) NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **PF1.007** will not equal or exceed **20**% in accordance with NAC 445B.22017.
  - (5) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The opacity from **PF1.007** will not equal or exceed **0**%.

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375 Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions**

- Q. Emission Units S2.019 and PF1.007 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part 70 Program 3. **Operating Parameters** 
    - Maximum allowable loading rate of lime to \$2.019 will not exceed 35.0 tons per hour, averaged on a monthly basis.
    - b.

**S2.019 and PF1.007** may operate **8,760** hours per calendar year.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Monitoring, Record keeping and Compliance

40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the date of initial startup, Permittee will:

- Install, calibrate, operate and maintain devices for the measurement of the internal pressure of the baghouse controlling emissions from S2.019.
- Conduct and record a reading of the baghouse internal pressure controlling emissions from **S2.019** on a monthly basis. Record any monitored excursions from the indicator range and record any corrective actions taken.
- The indicator range for the baghouse internal pressure shall be between 1.0 to 6.0 inches of water for the baghouse controlling emissions from **S2.019**. Excursions shall be defined as anytime the baghouse internal pressure falls outside this indicator range.
- Conduct and record a baghouse inspection on an annual basis.
- The required monitoring established in a.(1) through (4) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each month, or part of the month that \$2.019 is operating:
  - Results of the reading of the internal pressure of the baghouse controlling emissions from S2.019. (i)
  - Results and verification of the annual baghouse inspection and documentation of the inspection date of the baghouse controlling emissions from **S2.019**, and any corrective actions taken.
- Permittee will: b.
  - On a monthly basis, record the amount of lime loaded into \$2.019 each day loading occurs and the duration of the loading.
  - On a monthly basis, record the hours of operation of **S2.019**.
  - On an annual basis, perform an inspection of the S2.019 baghouse, including a visual inspection of the bags and all connecting points. Annual baghouse inspection records must show that observations were made and include records of any corrective actions taken.
  - On a quarterly basis for S2.019, perform and record a visual survey of the opacity of the discharges from the exhaust point of **S2.019**. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
  - (5) On a quarterly basis for **PF1.007** perform and record visible survey of the opacity of the discharges from the exhaust point of **PF1.007**. If these visible surveys document any opacity greater than 0%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.
- 5. NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program **Shielded Requirements**

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

# Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

**Issued to:** Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions** (continued)

**R.** Emission Units S2.020 and PF1.008 Location North 4,525.61 km, East 487.08 km, UTM (Zone 11)

R. System 08B - Unit #2 Lime Scrubber System A (Scrubber - Loop 2 Lime Day Storage Bin, 35 ton capacity)

S 2.020 Loop 2 Lime Day Storage Bin Loading

PF 1.008 Loop 2 Lime Day Storage Bin Unloading

1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

Air Pollution Equipment

a. Emissions from **S2.020** shall be controlled by a control system consisting of a dust collector to control particulate matter emissions.

Stack Parameters:

Manufacturer: Evo
Stack Height: 75 ft
Stack Diameter: 1.4 ft
Nominal Exhaust Temperature: Ambient
Nominal Volumetric Flowrate: 2,800 acfm

- b. Emissions from **PF1.008** will be controlled by unloading inside of an enclosed building into a wet process with no source emissions to the atmosphere.
- 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- a. On and after the date of startup of **S2.020**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.020** the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **41.32** pounds per hour.
  - (2) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of  $PM_{10}$  (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.41** pound per hour.
  - (3) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **0.41** pound per hour.
  - (4) NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **S2.020** will not equal or exceed **20**% in accordance with NAC 445B.22017.
- b. On and after the date of startup of **PF1.008**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.008**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **41.32** pounds per hour.
  - (2) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.0** pound per hour.
  - (3) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **0.0** pound per hour.
  - (4) NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **PF1.008** will not equal or exceed **20**% in accordance with NAC 445B.22017.
  - (5) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The opacity from **PF1.008** will not equal or exceed **0**%.

### BUREAU OF AIR POLLUTION CONTROL

# Facility ID No. A0375 Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions**

- R. Emission Units S2.020 and PF1.008 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part 70 Program 3. **Operating Parameters** 
    - Maximum allowable loading rate of lime to \$2.020 will not exceed 35.0 tons per hour, averaged on a monthly basis.
    - b.

**S2.020 and PF1.008** may operate **8,760** hours per calendar year.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Monitoring, Record keeping and Compliance

40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the date of initial startup, Permittee will:

- Install, calibrate, operate and maintain devices for the measurement of the internal pressure of the baghouse controlling emissions from S2.020.
- Conduct and record a reading of the baghouse internal pressure controlling emissions from **S2.020** on a monthly basis. Record any monitored excursions from the indicator range and record any corrective actions taken.
- The indicator range for the baghouse internal pressure shall be between 1.0 to 6.0 inches of water for the baghouse controlling emissions from \$2.020. Excursions shall be defined as anytime the baghouse internal pressure falls outside this indicator range.
- Conduct and record a baghouse inspection on an annual basis.
- The required monitoring established in a.(1) through (4) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each month, or part of the month that \$2.020 is operating:
  - Results of the reading of the internal pressure of the baghouse controlling emissions from **S2.020**. (i)
  - (ii) Results and verification of the annual baghouse inspection and documentation of the inspection date of the baghouse controlling emissions from **S2.020**, and any corrective actions taken.
- Permittee will: b.
  - On a monthly basis, record the amount of lime loaded into \$2.020 each day loading occurs and the duration of the loading.
  - On a monthly basis, record the hours of operation of **S2.020**.
  - On an annual basis, perform an inspection of the S2.020 baghouse, including a visual inspection of the bags and all connecting points. Annual baghouse inspection records must show that observations were made and include records of any corrective actions taken.
  - On a quarterly basis for \$2.020, perform and record a visual survey of the opacity of the discharges from the exhaust point of **S2.020**. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
  - (5) On a quarterly basis for **PF1.008** perform and record visible survey of the opacity of the discharges from the exhaust point of **PF1.008**. If these visible surveys document any opacity greater than 0%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.
- 5. NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program **Shielded Requirements**

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

# Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

**Issued to:** Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions** (continued)

S. Emission Units S2.021 and PF1.009 Location North 4,525.61 km, East 487.08 km, UTM (Zone 11)

S. System 09A - Unit #2 Lime Scrubber System B (Scrubber - Loop 1 Recycle Ash Day Storage Bin, 50 ton capacity)

S 2.021 Loop 1 Recycle Ash Day Storage Bin Loading

PF 1.009 Loop 1 Recycle Ash Day Storage Bin Unloading

- 1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Air Pollution Equipment
  - a. Emissions from **S2.021** shall be controlled by a control system consisting of a dust collector to control particulate matter emissions.

Stack Parameters:

Manufacturer: Evo
Stack Height: 84 ft
Stack Diameter: 1.9 ft
Nominal Exhaust Temperature: Ambient
Nominal Volumetric Flowrate: 5,100 acfm

- b. Emissions from **PF1.009** will be controlled by unloading inside of an enclosed building into a wet process with no source emissions to the atmosphere.
- 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- a. On and after the date of startup of **S2.021**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.021** the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **41.32** pounds per hour.
  - (2) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of  $PM_{10}$  (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.74** pound per hour.
  - (3) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **0.74** pound per hour.
  - (4) NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **S2.021** will not equal or exceed **20**% in accordance with NAC 445B.22017.
- b. On and after the date of startup of **PF1.009**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.009**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **41.32** pounds per hour.
  - (2) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.0** pound per hour.
  - (3) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **0.0** pound per hour.
  - (4) NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **PF1.009** will not equal or exceed **20**% in accordance with NAC 445B.22017.
  - (5) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The opacity from **PF1.009** will not equal or exceed **0**%.

### BUREAU OF AIR POLLUTION CONTROL

# Facility ID No. A0375 Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions**

- Emission Units S2.021 and PF1.009 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part 70 Program 3. **Operating Parameters** 
    - Maximum allowable loading rate of recycle ash to \$2.021 will not exceed 35.0 tons per hour, averaged on a monthly basis.
    - Hours b. **S2.021 and PF1.009** may operate **8,760** hours per calendar year.
  - 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Monitoring, Record keeping and Compliance

40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the date of initial startup, Permittee will:

- Install, calibrate, operate and maintain devices for the measurement of the internal pressure of the baghouse controlling emissions from **S2.021**.
- Conduct and record a reading of the baghouse internal pressure controlling emissions from \$2.021 on a monthly basis. Record any monitored excursions from the indicator range and record any corrective actions taken.
- The indicator range for the baghouse internal pressure shall be between 1.0 to 6.0 inches of water for the baghouse controlling emissions from **S2.021**. Excursions shall be defined as anytime the baghouse internal pressure falls outside this indicator range.
- Conduct and record a baghouse inspection on an annual basis.
- The required monitoring established in a.(1) through (4) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each month, or part of the month that \$2.021 is operating:
  - Results of the reading of the internal pressure of the baghouse controlling emissions from S2.021. (i)
  - Results and verification of the annual baghouse inspection and documentation of the inspection date of the baghouse controlling emissions from **S2.021**, and any corrective actions taken.

### **BUREAU OF AIR POLLUTION CONTROL**

Facility ID No. A0375

# Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions**

- S. Emission Units S2.021 and PF1.009 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) *Part 70 Program* Monitoring, Record keeping and Compliance
    - b. Permittee will:
      - (1) On a monthly basis, record the amount of recycled ash loaded into **S2.021** each day loading occurs and the duration of the loading.
      - (2) On a monthly basis, record the hours of operation for **S2.021**.
      - (3) Conduct and record a Method 5 or 17 and a Method 201A (or an equivalent method as approved in advance by the Director) performance test for PM and PM<sub>10</sub> on the exhaust stack of **S2.021**, consisting of three valid runs within 180 days from the date of issuance of this operating permit and 90 days prior to the expiration of this operating permit. The sampling time and sample volume for each run shall be at least 120 minutes and 1.70 dscm (60 dscf). The Method 201A performance test must be conducted in accordance with 40 CFR Part 51, Appendix M, Method 201A. The Method 5 or 17 performance test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 5 or 17.
      - (4) The Method 201A performance test may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 test performed under this provision shall be considered PM<sub>10</sub> emissions for compliance demonstration purposes.
      - (5) As a means of showing compliance with the opacity limit prescribed in S.2 of this section, within 180 days from the date of issuance of this operating permit and 90 days prior to the expiration of this operating permit, conduct and record a Method 9 determination using the procedures in 40 CFR 60.11 to determine the opacity from the stack discharge of **S2.021**.
      - (6) On an annual basis, perform an inspection of the **S2.021** baghouse, including a visual inspection of the bags and all connecting points. Annual baghouse inspection records must show that observations were made and include records of any corrective actions taken.
      - (7) On a quarterly basis for **S2.021**, perform and record a visual survey of the opacity of the discharges from the exhaust point of **S2.021**. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
      - (8) On a quarterly basis for **PF1.009** perform and record visible survey of the opacity of the discharges from the exhaust point of **PF1.009**. If these visible surveys document any opacity greater than 0%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.
  - 5. NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* Shielded Requirements

### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

# Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

**Issued to:** Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions** (continued)

T. Emission Units S2.022 and PF1.010 Location North 4,525.61 km, East 487.08 km, UTM (Zone 11)

T. System 09B - Unit #2 Lime Scrubber System B (Scrubber - Loop 2 Recycle Ash Day Storage Bin, 50 ton capacity)

S 2.022 Loop 2 Recycle Ash Day Storage Bin Loading

PF 1.010 Loop 2 Recycle Ash Day Storage Bin Unloading

1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u> Air Pollution Equipment

a. Emissions from **S2.022** shall be controlled by a control system consisting of a dust collector to control particulate matter emissions.

Stack Parameters:

Manufacturer: Evo
Stack Height: 84 ft
Stack Diameter: 1.9 ft
Nominal Exhaust Temperature: Ambient
Nominal Volumetric Flowrate: 5,100 acfm

- b. Emissions from **PF1.010** will be controlled by unloading inside of an enclosed building into a wet process with no source emissions to the atmosphere.
- 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

- a. On and after the date of startup of **S2.022**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.022** the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **41.32** pounds per hour.
  - (2) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of  $PM_{10}$  (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.74** pound per hour.
  - (3) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **0.74** pound per hour.
  - (4) NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **S2.022** will not equal or exceed **20**% in accordance with NAC 445B.22017.
- b. On and after the date of startup of **PF1.010**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.010**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **41.32** pounds per hour.
  - (2) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.0** pound per hour.
  - (3) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **0.0** pound per hour.
  - (4) NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **PF1.010** will not equal or exceed **20**% in accordance with NAC 445B.22017.
  - (5) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The opacity from **PF1.010** will not equal or exceed **0**%.

### BUREAU OF AIR POLLUTION CONTROL

# Facility ID No. A0375 Permit No. AP4911-0457.01

### PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions**

- Emission Units S2.022 and PF1.010 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part 70 Program 3. **Operating Parameters** 
    - Maximum allowable loading rate of recycle ash to \$2.022 will not exceed 35.0 tons per hour, averaged on a monthly basis.
    - Hours b.
      - S2.022 and PF1.010 may operate 8,760 hours per calendar year.
  - 4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Monitoring, Record keeping and Compliance

40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the date of initial startup, Permittee will:

- Install, calibrate, operate and maintain devices for the measurement of the internal pressure of the baghouse controlling emissions from S2.022.
- Conduct and record a reading of the baghouse internal pressure controlling emissions from \$2.022 on a monthly basis. Record any monitored excursions from the indicator range and record any corrective actions taken.
- The indicator range for the baghouse internal pressure shall be between 1.0 to 6.0 inches of water for the baghouse controlling emissions from **S2.022**. Excursions shall be defined as anytime the baghouse internal pressure falls outside this indicator range.
- Conduct and record a baghouse inspection on an annual basis.
- The required monitoring established in a.(1) through (4) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each month, or part of the month that \$2.022 is operating:
  - Results of the reading of the internal pressure of the baghouse controlling emissions from S2.022. (i)
  - Results and verification of the annual baghouse inspection and documentation of the inspection date of the baghouse controlling emissions from **S2.022**, and any corrective actions taken.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

## Permit No. AP4911-0457.01

## PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions**

- T. Emission Units S2.022 and PF1.010 (continued)
  - 4. NAC 445B.3405 (NAC 445B.316) *Part 70 Program* Monitoring, Record keeping and Compliance
    - b. Permittee will:
      - (1) On a monthly basis, record the amount of recycled ash loaded into **S2.022** each day loading occurs and the duration of the loading.
      - (2) On a monthly basis, record the hours of operation for **S2.022**.
      - (3) Conduct and record a Method 5 or 17 and a Method 201A (or an equivalent method as approved in advance by the Director) performance test for PM and PM<sub>10</sub> on the exhaust stack of **S2.022**, consisting of three valid runs within 180 days from the date of issuance of this operating permit and 90 days prior to the expiration of this operating permit. The sampling time and sample volume for each run shall be at least 120 minutes and 1.70 dscm (60 dscf). The Method 201A performance test must be conducted in accordance with 40 CFR Part 51, Appendix M, Method 201A. The Method 5 or 17 performance test must be conducted in accordance with 40 CFR Part 60, Appendix A, Method 5 or 17.
      - (4) The Method 201A performance test may be replaced by a Method 5 or 17 test which includes the back-half catch. All particulate captured in the Method 5 or 17 test performed under this provision shall be considered PM<sub>10</sub> emissions for compliance demonstration purposes.
      - (5) As a means of showing compliance with the opacity limit prescribed in T.2 of this section, within 180 days from the date of issuance of this operating permit and 90 days prior to the expiration of this operating permit, conduct and record a Method 9 determination using the procedures in 40 CFR 60.11 to determine the opacity from the stack discharge of **S2.022**.
      - (6) On an annual basis, perform an inspection of the **S2.022** baghouse, including a visual inspection of the bags and all connecting points. Annual baghouse inspection records must show that observations were made and include records of any corrective actions taken.
      - (7) On a quarterly basis for **S2.022**, perform and record a visual survey of the opacity of the discharges from the exhaust point of **S2.022**. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
      - (8) On a quarterly basis for **PF1.010** perform and record visible survey of the opacity of the discharges from the exhaust point of **PF1.010**. If these visible surveys document any opacity greater than 0%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.
  - NAC 445B.3405 (NAC 445B.316) <u>Federally Enforceable Part 70 Program</u> Shielded Requirements

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

## Permit No. AP4911-0457.01

## PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

**Issued to:** Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

## **Section VI. Specific Operating Conditions** (continued)

U. Emission Units S2.023 and PF1.011 Location North 4,525.61 km, East 487.08 km, UTM (Zone 11)

U. System 10A - Unit #2 Lime Scrubber System C (West Lime Storage Silo, 50' (H) x 20' (W), 500 ton capacity)

S 2.023 West Lime Storage Silo Loading

PF 1.011 West Lime Storage Silo Unloading

1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

Air Pollution Equipment

a. Emissions from **S2.023** shall be controlled by a control system consisting of a bin vent filter to control particulate matter emissions while loading the storage bin.

Stack Parameters:

Stack Height: 93 ft
Stack Diameter: 1.4 ft
Nominal Exhaust Temperature: Ambient
Nominal Volumetric Flowrate: 960 acfm

- b. Emissions from **PF1.011** will be controlled by unloading through an enclosed piping system to a Lime Day Storage Bin.
- 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

- a. On and after the date of startup of **S2.023**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.023** the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **44.58** pounds per hour.
  - (2) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.14** pound per hour.
  - (3) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **0.14** pound per hour.
  - (4) NAC 445B.22017 *Federally Enforceable SIP Requirement* The opacity from **S2.023** will not equal or exceed **20**% in accordance with NAC 445B.22017.
- b. On and after the date of startup of **PF1.011**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.011**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **44.58** pounds per hour.
  - (2) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of  $PM_{10}$  (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.0** pound per hour.
  - (3) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **0.0** pound per hour.
  - (4) NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **PF1.011** will not equal or exceed **20**% in accordance with NAC 445B.22017.
  - (5) NAC 445B.305; NAC 445B.308 Part 70 Program The opacity from **PF1.011** will not equal or exceed **0**%.

#### BUREAU OF AIR POLLUTION CONTROL

# Facility ID No. A0375 Permit No. AP4911-0457.01

## PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions**

- U. Emission Units S2.023 and PF1.011 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part 70 Program 3. **Operating Parameters** 
    - Maximum allowable loading rate of lime to \$2.023 will not exceed 50.0 tons per hour, averaged on a monthly basis.
    - b.

**S2.023 and PF1.011** may operate **8,760** hours per calendar year.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Monitoring, Record keeping and Compliance

40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the date of initial startup, Permittee will:

- (1) Conduct a visual survey of the exhaust stack from the bin vent filter during loading. Record any monitored excursions from the indicator range and record any corrective actions taken.
- The indicator range for the bin vent filter shall be between 0 to 20 percent opacity for the bin vent filter controlling emissions from S2.023. Excursions shall be defined as anytime the bin vent filter opacity falls outside this indicator range.
- Conduct and record a bin vent filter inspection on an annual basis.
- The required monitoring established in a.(1) through (4) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each month, or part of the month that \$2.023 is operating:
  - Results of the visual survey from the bin vent filter exhaust stack during loading of S2.023.
  - Results and verification of the annual bin vent filter inspection and documentation of the inspection date of the bin vent filter controlling emissions from \$2.023, and any corrective actions taken.
- Permittee will: b.
  - (1) On a monthly basis, record the amount of soda ash loaded into S2.023 each day loading occurs and the duration of the loading.
  - On a monthly basis, record the hours of operation of **S2.023**. (2)
  - On an annual basis, perform an inspection of the S2.023 bin vent filter, including a visual inspection of the bags and all connecting points. Annual baghouse inspection records must show that observations were made and include records of any corrective actions taken.
  - During loading for S2.023, perform and record a visual survey of the opacity of the discharges from the exhaust point of S2.023. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
  - (5) On a quarterly basis for **PF1.011** perform and record visible survey of the opacity of the discharges from the exhaust point of **PF1.011**. If these visible surveys document any opacity greater than 0%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.
- NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program 5. **Shielded Requirements**

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

## Permit No. AP4911-0457.01

## PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

**Issued to:** Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

## **Section VI. Specific Operating Conditions** (continued)

V. Emission Units S2.024 and PF1.012 Location North 4,525.61 km, East 487.08 km, UTM (Zone 11)

V. System 10B - Unit #2 Lime Scrubber System C (East Lime Storage Silo, 50' (H) x 20' (W), 500 ton capacity)

S 2.024 East Lime Storage Silo Loading

PF 1.012 East Lime Storage Silo Unloading

1. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

Air Pollution Equipment

a. Emissions from **S2.024** shall be controlled by a control system consisting of a bin vent filter to control particulate matter emissions while loading the storage bin.

Stack Parameters:

Stack Height: 93 ft
Stack Diameter: 1.4 ft
Nominal Exhaust Temperature: Ambient
Nominal Volumetric Flowrate: 960 acfm

- b. Emissions from **PF1.012** will be controlled by unloading through an enclosed piping system to a Lime Day Storage Bin.
- 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

- a. On and after the date of startup of **S2.024**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.024** the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **44.58** pounds per hour.
  - (2) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.14** pound per hour.
  - (3) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **0.14** pound per hour.
  - (4) NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **S2.024** will not equal or exceed **20**% in accordance with NAC 445B.22017.
- b. On and after the date of startup of **PF1.012**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.012**, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.22033 <u>Federally Enforceable SIP Requirement</u> The discharge of PM10 (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **44.58** pounds per hour.
  - (2) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of  $PM_{10}$  (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.0** pound per hour.
  - (3) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of PM (particulate matter) to the atmosphere will not exceed **0.0** pound per hour.
  - (4) NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **PF1.012** will not equal or exceed **20**% in accordance with NAC 445B.22017
  - (5) NAC 445B.305; NAC 445B.308 Part 70 Program The opacity from **PF1.012** will not equal or exceed **0**%.

#### BUREAU OF AIR POLLUTION CONTROL

# Facility ID No. A0375 Permit No. AP4911-0457.01

## PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions**

- V. Emission Units S2.024 and PF1.012 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part 70 Program 3. **Operating Parameters** 
    - Maximum allowable loading rate of lime to \$2.024 will not exceed 50.0 tons per hour, averaged on a monthly basis.
    - b.

**S2.024 and PF1.012** may operate **8,760** hours per calendar year.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Monitoring, Record keeping and Compliance

40 CFR Part 64 Compliance Assurance Monitoring Program

On and after the date of initial startup, Permittee will:

- (1) Conduct a visual survey of the exhaust stack from the bin vent filter during loading. Record any monitored excursions from the indicator range and record any corrective actions taken.
- The indicator range for the bin vent filter shall be between 0 to 20 percent opacity for the bin vent filter controlling emissions from **S2.024**. Excursions shall be defined as anytime the bin vent filter opacity falls outside this indicator range.
- Conduct and record a bin vent filter inspection on an annual basis.
- The required monitoring established in a.(1) through (4) above, will be maintained in a contemporaneous log containing at a minimum, the following record keeping for each month, or part of the month that \$2.024 is operating:
  - Results of the visual survey from the bin vent filter exhaust stack during loading of S2.024.
  - Results and verification of the annual bin vent filter inspection and documentation of the inspection date of the bin vent filter controlling emissions from **S2.024**, and any corrective actions taken.
- Permittee will: b.
  - (1) On a monthly basis, record the amount of soda ash loaded into S2.024 each day loading occurs and the duration of the loading.
  - On a monthly basis, record the hours of operation of **S2.024**.
  - On an annual basis, perform an inspection of the S2.024 bin vent filter, including a visual inspection of the bags and all connecting points. Annual baghouse inspection records must show that observations were made and include records of any corrective actions taken.
  - During loading for S2.024, perform and record a visual survey of the opacity of the discharges from the exhaust point of **S2.024**. If these visual surveys document any opacity greater than 20%, provide immediate corrective action in the affected control device. Visual survey inspection records must show that observations were made and include records of any corrective actions taken.
  - (5) On a quarterly basis for **PF1.012** perform and record visible survey of the opacity of the discharges from the exhaust point of **PF1.012**. If these visible surveys document any opacity greater than 0%, provide immediate corrective action. Visible survey inspection records must show that observations were made and include records of any corrective actions taken.
- NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program 5. **Shielded Requirements**

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

## Permit No. AP4911-0457.01

## PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

**Issued to:** Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions** (continued)

W. Emission Units PF1.013 and PF1.014 location North 4,525.55 km, East 487.45 km, UTM (Zone 11)

#### W. System 11 - Cooling Tower System

PF 1.013 Unit #1 Cooling tower, manufactured by Ecodyne

PF 1.014 Unit #2 Cooling tower, manufactured by Research Cottrell

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

Control system consisting of integral louvered drift eliminators installed on **PF1.013 and PF1.014** to reduce the cooling tower drift losses to the manufacturer's specification of 0.008% or less.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

On and after the date of startup of **PF1.013 and PF1.014**, Permittee will not discharge or cause the discharge into the atmosphere from **PF1.013 and PF1.014** the following pollutants in excess of the following specified limits:

a. NAC 445B.305; NAC 445B.308  $\underline{Part\ 70\ Program}$  - The discharge of PM (total particulate matter) and PM<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed limits stated in the table below:

Emission Unit	PM (lbs/hr)	PM10 (lbs/hr)
PF1.013	34.01	34.01
PF1.014	33.91	33.91

- b. NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **PF1.013 and PF1.014**, each, will not equal or exceed **20%** in accordance with NAC 445B.22017.
- 3. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

#### **Operating Parameters**

- a. The use of chromium-based water treatment chemicals in **PF1.013 and PF1.014** is prohibited.
- b. Hours

PF1.013 and PF1.014 may operate 8,760 hours per calendar year.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

## Permit No. AP4911-0457.01

## PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

**Issued to:** Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

## **Section VI. Specific Operating Conditions** (continued)

#### W. Emission Units PF1.013 and PF1.014 (continued)

- 4. NAC 445B.3405 (NAC 445B.316) *Part 70 Program* Monitoring, Record keeping and Compliance
  - a. 40 CFR Part 64 Compliance Assurance Monitoring Program

    The Permittee, upon the issuance date of this operating permit will:
    - (1) Sample the cooling tower water from **PF1.013 and PF1.014** on a calendar quarterly basis for the TDS concentration in parts per million (ppm). The TDS will be determined using EPA Method 160.1 DNS.
    - (2) Monitor and record that the cooling tower drift eliminators for **PF1.013 and PF1.014** are in-place and functional, on an annual basis. Inspection records must show that observations were made and include records of any corrective actions taken.

#### b. **Recordkeeping**

*The Permittee* will maintain a contemporaneous log containing at a minimum, the following recordkeeping for each day, or part of a day that **PF1.013 and PF1.014** are operating:

- (1) The TDS value of the circulating water of **PF1.013 and PF1.014** on a calendar quarterly basis. The TDS value will be based on the sampling required in W.4.a of this section.
- (2) The volume flow rate of the circulating water of **PF1.013** and **PF1.014** on an hourly basis.
- (3) The total hourly quantities of water circulated for each hour of each day **PF1.013** and **PF1.014** operate.
- (4) The total daily hours of operation of **PF1.013** and **PF1.014** for the corresponding date.
- (5) Maintain manufacturer's guidelines for maintenance and inspection of the drift eliminators on site. Maintain annual inspection records including records of observations and any corrective actions taken.
- 5. NAC 445B.3405 (NAC 445B.316) <u>Federally Enforceable Part 70 Program</u> <u>Shielded Requirements</u>

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

## Permit No. AP4911-0457.01

## PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions** (continued)

X. Emission Unit #S2.025 Location North 4,525.39 km, East 487.28 km, UTM (Zone 11)

#### X. System 12 - Fuel Oil Storage Tank

S 2.025 Fuel Oil Storage Tank, Vertical Fixed Roof, 150,000 gallon capacity

1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Air Pollution Equipment

Emissions from **S2.025** shall be controlled with a control system consisting of a fixed roof and submerged fill.

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

On and after the date of startup of **S2.025**, Permittee will not discharge or cause the discharge into the atmosphere from the exhaust stack of **S2.025** the following pollutants in excess of the following specified limits:

- a. NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of VOC (volatile organic compounds) to the atmosphere will not exceed **92.19** pounds per calendar year.
- b. NAC 445B.22017 <u>Federally Enforceable SIP Requirement</u> The opacity from **S2.025** will not equal or exceed **20%** in accordance with NAC 445B.22017.
- 3. NAC 445B.3405 (NAC 445B.316) <u>Part 70 Program</u>

**Operating Parameters** 

- a. **S2.025** may store only **#2 fuel oil**.
- b. The maximum annual throughput of #2 fuel oil for **S2.025** will not exceed **1,500,000** gallons per calendar year.
- c. Hours

**S2.025** may operate **8,760** hours per calendar year.

4. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Monitoring, Record keeping, Reporting and Compliance

On and after the date of startup of **S2.025**, Sierra Pacific Power Company - North Valmy Generating Station will maintain in a contemporaneous logbook or recordkeeping system the following information for **S2.025**:

- a. On a monthly basis, measure and record the throughput (gallons) of No. 2 fuel oil.
- b. On a monthly basis, record the hours of operation for which No. 2 fuel oil was stored in this storage tank.
- 5. NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program* Shielded Requirements

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

# Permit No. AP4911-0457.01

## PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section VI. Specific Operating Conditions** (continued)

Y. Emission Unit #S2.026 Location North 4,525.46 km, East 487.10 km, UTM (Zone 11)

#### Y. System 13 - Auxiliary Boiler

S 2.026 Babcock & Wilcox oil-fired package boiler, model # FM 103-88, serial # NA

1. NAC 445B.3405 (NAC 445B.316) *Part 70 Program* 

Air Pollution Equipment

Emissions from **S2.026** shall be controlled by operating the boiler in a manner which minimizes emissions.

Stack Parameters:

Stack Height: 190.0 ft
Stack Diameter: 2.0 ft
Nominal Exhaust Temperature: 542.93 °F
Nominal Volumetric Flowrate: 3,094 dscfm

2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

**Operating Parameters** 

- a. **S2.026** may combust only **#2 fuel oil**.
- b. The maximum allowable heat input for **S2.026** will not exceed **111.8** MMBtu/hr (805.5 gallons of oil per hour) in any one-hour period.
- c. Hours

S2.026 may operate 100.0 hours per calendar year.

3. NAC 445B.3405 (NAC 445B.316) Part 70 Program

Monitoring, Record keeping, Reporting and Compliance

On and after the date of startup of **S2.026**, Sierra Pacific Power Company - North Valmy Generating Station will maintain in a contemporaneous logbook or recordkeeping system the following information for **S2.026**:

- a. On a monthly basis, measure and record the volume (gallons) of No. 2 fuel oil combusted in **S2.026**.
- b. On a monthly basis, record the hours of operation of **S2.026**.
- 4. NAC 445B.3405 (NAC 445B.316) *Federally Enforceable Part 70 Program*<u>Shielded Requirements</u>

#### **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375

## Permit No. AP4911-0457.01

## PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

## **Section VI. Specific Operating Conditions** (continued)

#### Z. Emission Units #S2.027 and S2.028

S2.027 Location: North 4,525.49 km, East 487.06 km, UTM (Zone 11) S2.028 Location: North 4,525.49 km, East 487.04 km, UTM (Zone 11)

#### Z. System 14 - Emergency Diesel Fire Pumps

S 2.027 Emergency Diesel Fire Pump, 227 HP Output

S 2.028 Emergency Diesel Fire Pump, 227 HP Output

#### 1. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### Air Pollution Equipment

Emissions from S2.027 and S2.028 shall be controlled by operating the units in a manner which minimizes emissions.

#### **Stack Parameters:**

Stack Height: 24.0 ft
Stack Diameter: 0.5 ft
Nominal Exhaust Temperature: 826 °F
Nominal Volumetric Flowrate: 961 acfm

#### 2. NAC 445B.3405 (NAC 445B.316) Part 70 Program

#### **Emission Limits**

- a. On and after the date of startup of **S2.027** and **S2.028**, Permittee will not discharge or cause the discharge into the atmosphere from the stack of **S2.027** and **S2.028**, each, the following pollutants in excess of the following specified limits:
  - (1) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of **PM** (particulate matter) to the atmosphere will not exceed **0.20** pound per hour. The discharge of **PM** to the atmosphere will not exceed **0.05** ton per year, based on a 12-month rolling period.
  - (2) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of **PM**<sub>10</sub> (particulate matter less than 10 microns in diameter) to the atmosphere will not exceed **0.20** pound per hour. The discharge of **PM**<sub>10</sub> to the atmosphere will not exceed **0.05** ton per year, based on a 12-month rolling period.
  - (3) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of **SO**<sub>2</sub> (sulfur dioxide) to the atmosphere will not exceed **0.001** pound per hour. The discharge of **SO**<sub>2</sub> to the atmosphere will not exceed **0.0003** ton per year, based on a 12-month rolling period.
  - (4) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of  $NO_x$  (nitrogen oxides) to the atmosphere will not exceed **3.90** pounds per hour. The discharge of  $NO_x$  to the atmosphere will not exceed **0.98** ton per year, based on a 12-month rolling period.
  - (5) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of **CO** (carbon monoxide) to the atmosphere will not exceed **1.30** pound per hour. The discharge of **CO** to the atmosphere will not exceed **0.33** ton per year, based on a 12-month rolling period.
  - (6) NAC 445B.305; NAC 445B.308 <u>Part 70 Program</u> The discharge of **VOC** (volatile organic compounds) to the atmosphere will not exceed **0.39** pound per hour. The discharge of **VOC** to the atmosphere will not exceed **0.10** ton per year, based on a 12-month rolling period.
  - (7) NAC 445B.22017 *Federally Enforceable SIP Requirement* The opacity from the **S2.027 and S2.028** stack discharges, **each**, will not equal or exceed 20% in accordance with NAC 445B.22017.

## **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375 Permit No. AP4911-0457.01

## PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

## **Section VI. Specific Operating Conditions (continued)**

#### Emission Units #S2.027 and S2.028 (continued)

- NAC 445B.3405 (NAC 445B.316) Part 70 Program 2. **Emission Limits** 
  - New Source Performance Standards
    - 40 CFR Part 60.4205(c) Federally Enforceable New Source Performance Standard Requirement Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in Table 4 of 40 CFR Part 60, Subpart IIII. The following emission standards (in g/kW-hr) apply
      - For engines with a maximum engine power of greater than 130 kW, but less than 225 kW, the following emission standards (in g/kW-hr) apply:
        - Non-methane hydrocarbon (NMHC) + Oxides of Nitrogen (NO<sub>x</sub>), combined, shall not exceed **10.5** g/kW-hr;
        - (B) Carbon Monoxide (CO) shall not exceed 3.5 g/kW-hr;
        - (C) Particulate Matter (PM) shall not exceed 0.54 g/kW-hr).
    - 40 CFR Part 60.4207(a) Federally Enforceable New Source Performance Standard Requirement Beginning (2) October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).
      - Beginning June 1, 2007, except as otherwise specifically provided in this subpart, all Non-road diesel fuel is subject to the following per-gallon standards:
        - (A) Sulfur content - 500 parts per million (ppm) maximum. (40 CFR 80.510(a)(1))
        - Cetane index or aromatic content minimum cetane index of 40 or maximum aromatic (B) content of 35 volume percent. (40 CFR 80.510(a)(2))
    - (3) 40 CFR Part 60.4207(b) Federally Enforceable New Source Performance Standard Requirement - Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for non-road diesel fuel.
      - Beginning June 1, 2010, except as otherwise specifically provided in this subpart, all Non-road diesel fuel is subject to the following per-gallon standards:
        - Sulfur content 15 (ppm) maximum. (40 CFR 80.510(b)(1)) (A)
        - (B) Cetane index or aromatic content - minimum cetane index of 40 or maximum aromatic content of 35 volume percent. (40 CFR 80.510(b)(2))
- NAC 445B.3405 (NAC 445B.316) Part 70 Program 3.

#### **Operating Parameters**

- S2.027 and S2.028 may combust #2 Distillate Fuel Oil only.
- S2.027 and S2.028, each, may not combust more than 11.2 gallons of #2 Distillate Fuel Oil per hour. b.
- The sulfur content of the #2 Distillate Fuel Oil combusted in S2.027 and S2.028 will not exceed 0.0015% by weight. c.
- d. **S2.027** and **S2.028** may not operate on a routine basis in excess of **500** hours per calendar year. If additional firing is required for emergency fire protection, the Permittee will document the emergency and handle the operation as excess emissions as required by Section ??? (to be filled in by NDEP).

#### BUREAU OF AIR POLLUTION CONTROL

# Facility ID No. A0375 Permit No. AP4911-0457.01

## PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

## **Section VI. Specific Operating Conditions (continued)**

- Emission Units #S2.027 and S2.028 (continued)
  - NAC 445B.3405 (NAC 445B.316) Part 70 Program 4. Monitoring, Record keeping, Reporting and Compliance
    - Upon commencement of operation, *the Permittee* will:
      - Monitor and record the total daily hours of operation of S2.027 and S2.028 each day of operation. (1)
      - (2) Monitor and record the total daily fuel consumption for S2.027 and S2.028 each day of operation.
      - (3) Record average hourly fuel consumption for S2.027 and S2.028 each day of operation. The average will be determined using the total hours of operation and total daily fuel consumption in Z.4.a.(1) and Z.4.a.(2) of this section.
      - (4) Conduct and record a Method 9 visible emissions test on the stack discharge of \$2.027 and \$2.028 while the Diesel Engine Driven Generator is operating, on an annual basis. The Method 9 visible emissions test must be conducted by a certified visible emissions reader in accordance with 40 CFR Part 60, Appendix A, Method 9.
      - (5) 40 CFR Part 60.4211(c) Federally Enforceable New Source Performance Standard Requirement - The Permittee shall comply with the applicable NSPS Subpart IIII emission limits by purchasing an engine certified to the emission standards in Z.2.b.(1) of this section. The engine must be installed and configured according to the manufacturer's specifications.
      - (6) 40 CFR Part 60.4209(a) Federally Enforceable New Source Performance Standard Requirement - As an owner or operator of an emergency stationary CI ICE, you must install a non-resettable hour meter prior to startup of the engine.
      - (7) 40 CFR Part 60.4211(e) Federally Enforceable New Source Performance Standard Requirement - Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations.
      - (8) 40 CFR Part 60.4214(b) Federally Enforceable New Source Performance Standard Requirement - The **Permittee** is not required to submit an initial notification (i.e., notifications of construction and startup) under 40 CFR Part 60.7. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to nonemergency engines in the applicable model year, the Permittee must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The Permittee must record the time of operation of the engine and the reason the engine was in operation during that time.
  - 5. NAC 445B.3405 (NAC 445B.316) Federally Enforceable Part 70 Program **Shielded Requirements**

No shielded provisions are established for these emission units.

\*\*\*\*\*\*\*\*\*End of Specific Operating Conditions\*\*\*\*\*\*\*

## Nevada Department of Conservation and Natural Resources • Division of Environmental Protection **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375 Permit No. AP4911-0457.01

## PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

Section	VII.	<b>Emission</b>	Caps

A. No Emission Caps Defined

\*\*\*\*\*\*\*\*\*\*End of Emission Caps\*\*\*\*\*\*\*\*

## **BUREAU OF AIR POLLUTION CONTROL**

Facility ID No. A0375 Permit No. AP4911-0457.01

## PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

## **Section VIII. Surface Area Disturbance Conditions**

State Implementation Plan (SIP) Article 7.3

Permittee may not cause or permit the construction, repair, or demolition work, or the use of unpaved or untreated areas without applying all such measures as may be required by the Director to prevent particulate matter from becoming airborne.

- Permittee will control fugitive dust in accordance with the dust control plan entitled "Compliance Dust Control Plan North Valmy Generating Station", dated November 23, 2000.
- Fugitive Dust (NAC 445B.22037) B.
  - Permittee may not cause or permit the handling, transporting, or storing of any material in a manner which allows or may allow controllable particulate matter to become airborne.
  - 2. Except as otherwise provided in subsection 4, Permittee may not cause or permit the construction, repair, demolition, or use of unpaved or untreated areas without first putting into effect an ongoing program using the best practical methods to prevent particulate matter from becoming airborne. As used in this subsection, "best practical methods" includes, but is not limited to, paving, chemical stabilization, watering, phased construction, and revegetation.
  - Except as provided in subsection 4, Permittee may not disturb or cover 5 acres or more of land or its topsoil until Permittee has obtained an 3. Operating Permit for surface area disturbance to clear, excavate, or level the land or to deposit any foreign material to fill or cover the land.
  - 4. The provisions of subsections 2 and 3 do not apply to:
    - Agricultural activities occurring on agricultural land; or
    - Surface disturbances authorized by a permit issued pursuant to NRS 519A.180 which occur on land which is not less than 5 acres or more than 20 acres.

\*\*\*\*\*\*\*\*End of Surface Area Disturbance Conditions\*\*\*\*\*\*\*\*

## Nevada Department of Conservation and Natural Resources • Division of Environmental Protection **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375 Permit No. AP4911-0457.01

## PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

# **Section IX. Schedules of Compliance**

A. Chemical Accident Prevention Provisions

Permittee shall:

- Submit a compliance schedule for meeting the requirements of 40 CFR Part 68.215 by the date provided in 40 CFR Part
- Submit as part of the compliance certification submitted under 40 CFR Part 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 CFR Part 68.215, including the registration and submission of the risk management plan.

\*\*\*\*\*\*\*\*\*\*\*End of Schedules of Compliance\*\*\*\*\*\*\*\*

## Nevada Department of Conservation and Natural Resources • Division of Environmental Protection **BUREAU OF AIR POLLUTION CONTROL**

# Facility ID No. A0375 Permit No. AP4911-0457.01

## PROPOSED CLASS I AIR QUALITY OPERATING PERMIT

Issued to: Sierra Pacific Power Company D/B/A NV Energy - North Valmy Generating Station, as Permittee

Section X. Amendment	S
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## This permit:

- 1. Is non-transferable. (NAC 445B.287) Part 70 Program
- Will be posted conspicuously at or near the stationary source. (NAC 445B.318)(State Only **Requirement**)
- 3. Will expire and be subject to renewal five (5) years from August 17, 2005. (NAC 445B.315) Part 70 Program
- A complete application for renewal of an operating permit must be submitted to the director on the form provided by him with the appropriate fee at least 240 calendar days before the expiration date of this operating permit. (NAC 445B.323.2) Part 70 Program
- Any party aggrieved by the Department's decision to issue this permit may appeal to the State Environmental Commission (SEC) within ten days after the date of notice of the Department's action. (NRS 445B.340)(State Only Requirement)

THIS PERMIT EXPIRES ON:	Proposed	
	Signature	
	Issued by:	Matthew A. DeBurle Supervisor, Permitting Branch Bureau of Air Pollution Control
	Phone:	(775) 687-9391 Date:

# Class I Non-Permit Equipment List

Appended to Sierra Pacific Power Company - North Valmy Generating Station # AP4911-0457

Emission Unit #	Emission Unit Description
IA1.001	Unit #1 Circulating Water System
IA1.002	Unit #1 Fly Ash Unloader
IA1.003	Unit #1 Bottom Ash Handling System
IA1.004	Unit #1 Plant Water System
IA1.005	Unit #1 Glycol Heating System
IA1.006	Unit #1 Station Transformers & Electrical Systems
IA1.007	Unit #1 Emergency Diesel Generator (500 hr/yr cap)
IA1.008	Unit #1 Coal Mills
IA1.009	Unit #2 Circulating Water System
IA1.010	Unit #2 Fly Ash Unloader
IA1.011	Unit #2 Bottom Ash Handling System
IA1.012	Unit #2 Plant Water System
IA1.013	Unit #2 Glycol Heating System
IA1.014	Unit #2 Station Transformers & Electrical Systems
IA1.015	Unit #2 Emergency Diesel Generator (500 hr/yr cap)
IA1.016	Unit #2 Coal Mills
IA1.017	Auxiliary Boiler Fuel Oil Ignition System
IA1.018	On-Spec Used Oil Lubrication Storage Tank
IA1.019	Cooling Water Bromine Storage
IA1.020	Laboratory
IA1.021	Hazardous Waste Storage Pad
IA1.022	Evaporation Ponds
IA1.023	Mobile Coal & Ash Transport Equipment
IA1.024	Electro-Hydraulic Systems
IA1.025	Hydrogen/Carbon Dioxide/Nitrogen Purge System
IA1.026	Plant Instrument Air
IA1.027	Plant Service Air
IA1.028	Emergency Plant Fire Protection Engine & Fire Pump (500 hr/yr cap)
IA1.029	Degreasing Station
IA1.030	Electrical Turbine Lube Oil Vents
IA1.031	Deaerator Vents
IA1.032	Boiler Blowdown Vents
IA1.033	10,000 Gallon AST-Gasoline
IA1.034	10,000 Gallon AST-Diesel

Note: The equipments listed on this attachment are subject to all applicable requirements of the NAC and ASIP.